AMERICAN VOCATIONAL JOURNAL

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VOLUME 20 • NO. 7 • SEPTEMBER 1945

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SO DEEP FOR NORTH CAROLINA FORESTS

Benefits from AVA

Multi-Level Vocational Education

After-School Counseling

Trends in Vocational Education

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Art, Craft and Shop Supplies

What's Happening

By Art N. Craft

AMERICAN HANDICRAFTS recently moved its main office, mail order and warehouse to East Orange, New Jersey. With these new modern quarters and much increased space they are in a position to serve you better.

• • •

New War Production Board Releases:—Copper, aluminum, cowhide, steerhide, many hand tools such as files, etc. All of these items are still scarce. Your school priority will help speed delivery.

• • •

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• • •

The handicraft suppliers had a meeting in Chicago in July in view of forming an association. Temporary committee appointed to look into the matter. A handicraft association *could* be very helpful to you in the school field.

• • •

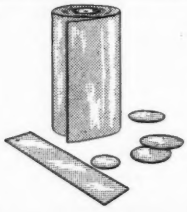
Did you know American Handicrafts is expanding their line not only in art and craft items but are adding a complete line of shop supplies and tools as fast as they become available for civilian use?

• • •

Have you heard tell that the school systems are being criticized because of the lack of emphasis on crafts before the war? The Army, Navy, Red Cross and Surgeon General have been unable to find anywhere near enough competent instructors in crafts for the recreation and occupational therapy programs. The need in still acute.

• • •

Watch this column for items of interest to teachers and shop supervisors. Newsy items and suggestions welcome.



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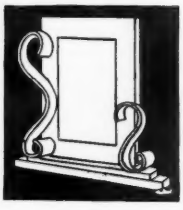

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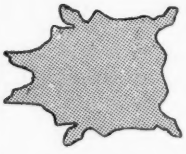

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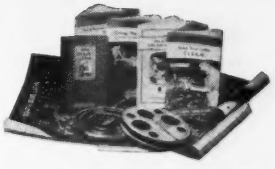

GET THESE TRAINING HELPS

In planning your post-war program include our books, sound films, wall charts and bulletins on lathe operation and care. Write for circular No. 21-D describing these training helps.

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American Vocational Association, Inc., advances American education by developing economic competence of youths and adults. The Association promotes the professional interests of persons engaged in vocational and industrial arts education. It encourages full-time and part-time instruction in the following fields: Industry, Agriculture, Home Economics, Business and Distributive Occupations, Industrial Arts, Industrial Education, Rehabilitation, Vocational Guidance.

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VOLUME 20 SEPTEMBER 1945 NUMBER 7

Here and There 5
Trends in Vocational Education, by J. C. Wright . . . 7
What Do I Get from AVA Membership? by Ray Fife . . 8
10 Benefits to You from AVA Membership 10
AVA Membership Ana'ysis 11
Building up the AVA 11
In Brief 12
For Peace more than for War, by C. M. Miller . . . 12
Multi-Level Vocational Education, by Charles W. Sylvester 13
The Aptitude Testing Program, by Albert G. Packard . 15
School Forests for North Carolina 17
Wren to be Western D. E. Voice 18
Ben Johnson Retires Again 19
Homemaking in Florida 20
Veteran Rehabilitation in Films 21
After-School Counseling, by C. Everett Woodman and H. C. Seymour 22
Photography at Bok, by Ernest O. Kohl, Jr. 23
Strange Words, by Dorothy Minikel 25
Industrial Education News 26
FFA Fosters Ingenuity 26
Futures in Glass, by Jack Lyons and William Hin 28
Business Education News 29
Agricultural Education News 30
Who's Who 31
On the Nutrition Front 32
Passing in Review! 33
AVA Intercom 34
In Tribute To 34
Animated Blackboards, by Harold P. Yates 35
New Teaching Aids 36
Awards for Farm Welding 36
Ship News 38
State Vocational Association Officers 40
Tips This Month 41
From the Desk of the Executive Secretary 42

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Here and There

Farmers Convinced

"Vocational Trainees Help Solve Shortages," proclaims the *Wisconsin Agriculturist and Farmer* in a May 5 front page feature. "The instruction has been successful enough to change original reactions of skepticism to ones of open admiration." As an example the paper reports, "Each year about 500 men and boys have improved their skill or learned for the first time how to shear sheep."

FPWT Appraised

For a national appraisal of Food Production War Training see the report of Frank W. Lathrop and Ellis B. Clough in the June 4, 1945, issue of *Education for Victory*. Based on study of 359 local programs; 4,586 interviews.

American Education Week

"Education to Promote the General Welfare" is the general theme for American Education Week, Nov. 11-17. Daily topics: Sun., Emphasizing Spiritual Values; Mon., Finishing the War; Tues., Securing the Peace; Wed., Improving Economic Well Being; Thurs., Strengthening Home Life; Fri., Developing Good Citizens; Sat., Building Sound Health.

Kansas Changes

The Pittsburg Branch Office of the State Board for Vocational Education has been moved to Topeka. The Board itself, formerly made up of schoolmen, may be changed to a board of laymen.

Praise from the Governor

Praising the Fashion Institute of Technology and Design located in the Central High School of Needle Trades, Gov. Dewey wrote to Principal Mortimer C. Ritter, "The Fashion Institute is a pioneer in the development of the state's program of institutes of applied and technical arts . . . . an excellent example of cooperation of both labor and industry."

In Short Supply

In WPB's recent list of 101 items now or expected to be in short supply are a number of particular importance to vocational education: burlap, leather, lumber, electric motors and transformers, photographic paper, pipe fittings, rubber, wire nails, and work gloves and clothes.

Audio-Visual Record

8,370 loans of training films were made by the audio-visual service, Michigan State Board for Vocational Education, since 1941. Attendance at showings was estimated by Eldon Robbins, supervisor, at 1,038,000.

Conferences at Fort Collins

Supervision of Homemaking at the State Level and *Home Problems of Employed Women* were subjects of two conferences held this summer at the Colorado A & M College, Fort Collins, Colo. Conference leaders for the first were Susan Burson, Pacific regional agent, homemaking education, U. S. Office of Education; Leonora Zimmerman, state supervisor, homemaking education, Colorado; Maude Williamson, professor of education, Colorado A & M College. For the second; Augusta Clawson, U. S. Office of Education; Winifred Hazen, director of parent education, Utah; Herb Heilig, teacher trainer in industrial education, Colorado A & M College.

National Group Recommends

Adoption of a 16-year minimum age for all employment during school hours and for work at any time in manufacturing and mechanical establishments was recommended by the National Commission on Children in Wartime. They also asked for minimum age provisions for work outside school hours; stricter enforcement of laws; and compulsory school attendance laws to cover all children between 6 and 18 years, with allowance for legal employment of those 16 and 17 years. Copies of the report covering a wide scope of subjects may be obtained on request to the Children's Bureau, U. S. Department of Labor.

Technical Institutes

93 institutions out of 127 reported to the Rochester Institute of Technology a total of 4,988 day students, 8,337 evening session students. For details see Special Survey Number of *Technical Education News* published by McGraw-Hill Book Co.

Fellowships

Yale University announces 10 fellowships in traffic engineering. For information and application blanks write to Bureau of Highway Traffic, Yale University, New Haven, Conn.

New Trade School Director

With the opening of the Nebraska State Trade School on July 1 as a complete trade training school, J. R. Jewell, its acting director, and Lowell A. Welsh, former trade teacher and city superintendent, have received promotions. Mr. Jewell becomes chief of the state vocational rehabilitation department after 20 years as state supervisor of vocational rehabilitation and wartime manager of the trade school. Mr. Welsh becomes school director.

The bill creating the State Trade School was passed in 1941, and Mr. Jewell assisted the legislature in drafting the bill. With the advent of the WPWT program, instruction concentrated on war training. Now the school returns to its broad vocational program. The recent state appropriation of $80,000 was double that of the last biennium.

Mr. Welsh, the new director, is a carpenter and cabinetmaker by trade; he has had experience in teaching radio and preflight aviation courses; has been connected with the Nebraska schools as both junior and senior high school principal, and has been a vocational education coordinator.

Color Materials Standards

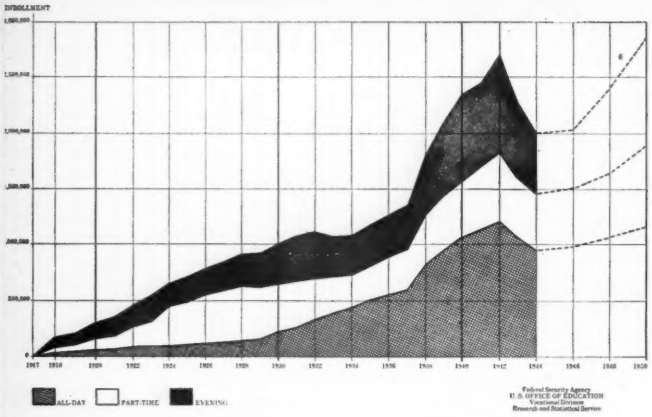
The National Bureau of Standards is canvassing with teachers, purchasing agents, and manufacturers a proposed set of standards for Color Materials for Art Education in Schools (TS-3961). Materials covered include: crayons, water colors, chalk, tempera, and modeling clay.

N. Y. Restricts Child Labor

Gov. Dewey has signed a bill providing that children under 16 cannot work more than three hours on any school day nor more than 23 hours in any week when school is in session. For minors 16 to 17 enrolled in a day school other than a part-time or continuation school, the limit of working hours is not more than four hours on any school day and not more than 28 hours in any week when school is in session. The law exempts farmers and minors engaged in sale or distribution of newspapers.

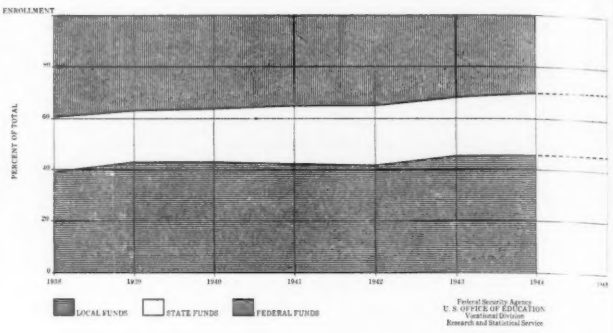
(Concluded on page 24)

Chart 1. ENROLLMENT IN VOCATIONAL CLASSES BY TYPE OF CLASS



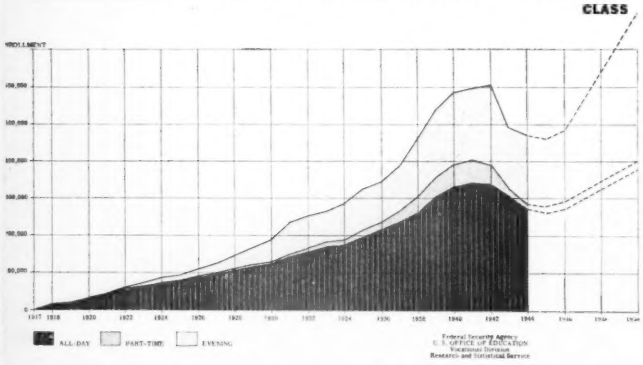
Enrollments for all types of classes for all vocational educational fields in the regular program for 1944 totaled 2,001,136.

Chart 2. SOURCE OF FUNDS EXPENDED FOR FEDERALLY AIDED VOCATIONAL CLA



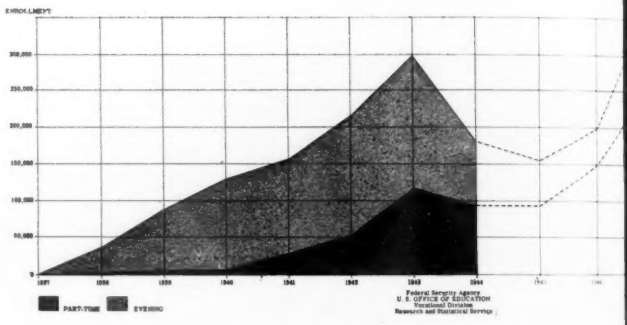
Of the total expenditures in 1944 of $64,299,132, local school systems alone contributed $29,324,533; states, $15,016,050.

Chart 3. ANALYSIS OF THE TOTAL ENROLLMENT IN AGRICULTURE CLASSES BY TYPE OF CLASS



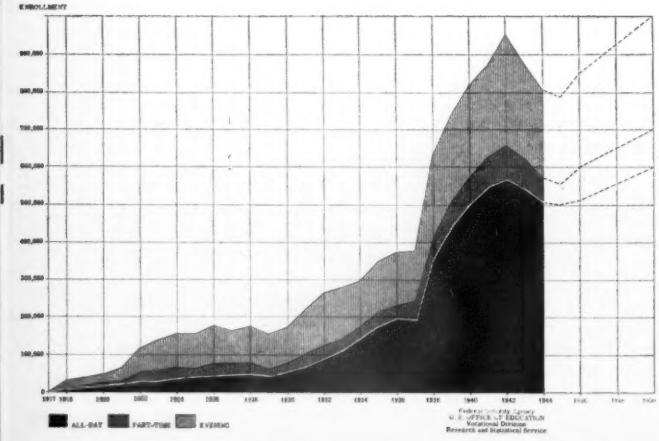
Vocational agriculture in 1944 enrolled 469,959. Although war service caused an overall drop, evening school enrollment rose.

Chart 4. ENROLLMENT IN DISTRIBUTIVE EDUCATION CLASSES BY TYPE OF CLASS



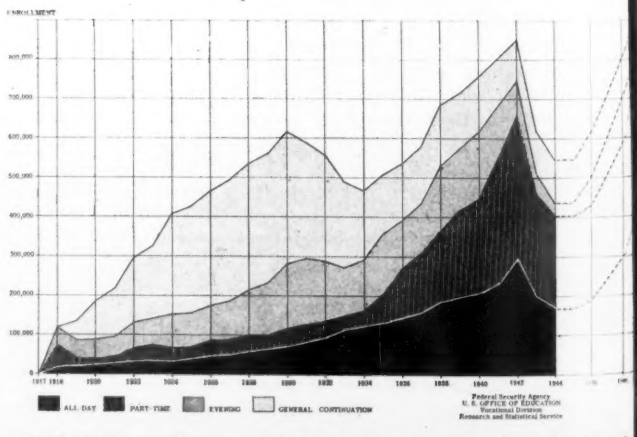
Discontinuance of wartime short courses which had served the purpose is chiefly responsible for the enrollment drop to 181,50

Chart 5. ENROLLMENT IN HOME ECONOMICS CLASSES BY TYPE OF CLASS



Of the total 1944 home economics class enrollment of 806,515 all-day programs served 507,215; evening classes, 233,650.

Chart 6. ENROLLMENT IN TRADE AND INDUSTRIAL CLASSES BY TYPE OF CLASS



Total 1944 enrollment, 543,153. Reflecting war demands part-ti cooperative figure went up 58.4 per cent; foremanship 150 per ce

Reports from All The States Yield Blueprints of Progress

Trends in Vocational Education

By J. C. WRIGHT,
Assistant U. S. Commissioner for Vocational Education

GRAPHIC illustrations of trends in allotments and expenditures in vocational education shown on accompanying pages should be carefully studied by every teacher, supervisor, and administrator working in vocational education. They illustrate trends in enrollments, with their rise and fall in response to changing economic and social conditions.

Data from which these charts were prepared come from annual reports prepared by State Boards for Vocational Education and submitted to the U. S. Office of Education as required by the Smith-Hughes Act. For additional information including data for each state see the "**Digest of Annual Reports of State Boards for Vocational Education**" issued by the Office of Education.

One fundamental principle on which vocational education programs must be founded is flexibility. Where training is no longer needed in any occupation the training programs for that particular occupation should be definitely terminated until conditions warrant re-establishment. Flexibility also means that new developments, such as radio, radar, and welding, require a new type of worker so the vocational school must meet the needs.

We can study these charts with these points in mind.

Chart I. Enrollment by Types: From 1918 to the end of fiscal 1944 there has been a consistent, steady growth in the enrollments in public vocational schools. Beginning with 1937 a rapid rise in enrollments took place. This rise can be credited to passage of the George-Deen Act, which increased funds available for salaries of teachers, supervisors, and directors. In 1942 World War II diminished enrollments. As soon as the war is over, we may expect the trend to be reversed.

Chart 2. Sources of Funds: Note that at no time has the per cent of local funds been less than the per cent of Federal funds, even though the Federal act has never required more than a 50-50 matching. The State's contribution has been fairly consistent, although lesser in amount. Even during the war, without any lessening of Federal funds, local communities increased materially their contributions.

Chart 3. Agriculture: The wholesome, gradual increase greatly expanded beginning in 1927 under the influence of George-Deen Act funds. But here again the war caused a considerable drop. Trends previous to 1940 would have produced an enrollment of around 700,000. With peacetime, this trend will be resumed.

Chart 4. Distributive Education: In the six-year period beginning in 1937, enrollments had reached almost 300,000, two-thirds of which were in evening schools. Many young men in these classes went into war service. The part-time group made up of younger people is not so much affected. Here, again, we may expect the enrollment to resume its natural trend.

Chart 5. Home Economics: This illustrates quite clearly the effect of additional funds provided by the George-Deen Act. Previous to 1937, the home economics program was not well supplied with funds. In five years enrollments increasing over 100 per cent reached 950,000. War decreased enrollments, especially in evening classes. When conditions change, enrollments here undoubtedly will be restored.

Chart 6. Trade and Industrial: Irregularity of the lines indicates that trade and industrial education is most sensitive to changing economic and social conditions. From 1918 to 1930 the general continuation program involved large numbers of young people, 14 to 16, who had gone to work under part-time school laws passed by about 28 states. These young people returned to school for four to eight hours a week. With the 1929 depression, these young people found it more difficult to secure jobs. This decreasing trend continued throughout the remaining years up to World War II.

Evening class enrollment also responds to changing economic conditions. However, this trend is greatly affected by the 1937 revision of "**Statement of Policies**" under which many classes for young workers, such as apprentices, could be conducted in the evening, but still classified as part-time instruction. Part-time trade extension enrollments increased; evening enrollments decreased.

The all-day school enrollment trend is remarkably consistent up to 1941. The sudden rise in 1942 and abrupt decrease in 1943 and '44 may be attributed to war conditions. Perhaps it will have a decided up-turn in 1946.

We should keep in mind that enrollments, while extremely sensitive to job opportunities, will show a "lag" of six to 12 months in response to changing economic and social conditions.

What Do I Get from AVA Membership?

To a practical question, a former president gives a practical answer

A FEW years ago, I addressed a state conference of vocational teachers on the subject, "The Program of the American Vocational Association." The many accomplishments of the association during the year and its plans for the future were discussed in detail. Imagine my surprise as well as my chagrin when, at the close of the session, a beginning teacher approached me and asked, "Mr. Fife, if I join the American Vocational Association, what will I get for my money?"

As I look back on the explanation which I offered in answer to the question, I am not sure that it was either logical or convincing. Yet I had only to hark back to my own professional beginning in a rural school, which was not even dignified by being located at a crossroads, to realize that the question was a very natural one.

To me, it means what certain of my more aristocratic friends might call a position but which I, in vocational education, still persist in terming a "job." To those who have inherited wealth or to those who find it possible to live without food, clothing or shelter, this motive may seem to be unworthy and possibly even disgraceful, but to one who falls in neither class such a motive is neither unimportant nor unworthy. If some kindly benefactor will favor me with a bequest of even a fraction of a million dollars, I shall agree to membership in many organizations based on purely altruistic motives. Until such bequest is actually in my possession, I fear I shall continue to be sufficiently prosaic and possibly selfish enough to retain an intense interest in the national organization which protects my job.

President Mobley and Treasurer Sylvester and other AVA officers confer frequently at the Washington headquarters. Sen. Smith and Rep. Hughes are sponsors of vocational legislation.

Other Values

From a personal and perhaps selfish point of view, I have an equal interest in another form of protection. I am interested in membership in the organization or organizations which will leave me free to pursue a profession which I have chosen as my life's work. Such protection rises above the level of sustenance and yet it is as vitally necessary to me if I am to be left reasonably free to pursue my work on a professional basis.

I am not ashamed to admit my interest in organization membership on a protective basis because I recall that I pay membership fees in the form of taxes to another national organization called democratic government. This organization incorporates the idea of protection to its membership as one of its cardinal principles.

I receive another return from my membership in the American Vocational Association which makes the payment of my membership fee a privilege rather than an obligation. It is hardly necessary to state that I believe in the cause of vocational education. I believe in the philosophy of educational service to the common people of the United States which that cause represents. If I wish my beliefs to function outside my own local circle of influence, I must integrate myself with a national organization which expresses my beliefs and my philosophy in an organized manner.

I secure another return from my membership. If I believe in the cause of vocational education and in the service which it affords, I cannot be true to that cause and that service unless I invest something in the promotion and advancement of that cause and that service. Few causes are so universally recognized that they promote themselves. I have the satisfaction of knowing that my membership along with thousands of others makes possible the fair and legitimate promotion of the educational cause in which I believe.

My membership in the American Vocational Association gives me professional contacts with my fellow workers which I could not secure in any other manner.

By RAY FIFE,

Professor, Department of Agricultural Education, Ohio State University

Through the columns of the Association magazine and the meetings of the Association, I secure the information and stimulation which is necessary to growth in any profession. This thought is expressed forcibly by D. A. Worcester, Teachers College, University of Nebraska:

"I do not recall that I have ever known a person who has stood high in his business or profession who has not actively affiliated himself with organizations, attended meetings, and read magazines concerned with his affairs. These seem to be the ways in which people keep up-to-date and alert to the new things which are going on. I should dislike to entrust myself or a member of my family to the care of a physician who does not belong to a medical association, who does not read professional journals, nor go to professional meetings. I would equally dislike to think that my child is being taught by a teacher who has not sufficient interest in her work to secure the information and the inspiration which come from such activities."

Second Question

This leads me to my second question. How can the organization to which I belong be most effective?

From my own personal point of view, an organization cannot be effective unless the members of that organization have a belief in its purposes. That belief must be sufficiently strong to stimulate more than passive membership on my part. For an organization to be effective, the people of the nation must believe in the cause which it represents and the program which it projects. Following the passage of the George-Deen Act, a congressional secretary inquired of the writer, "How much did it cost to secure the passage of that bill?" I replied, "We didn't need money. This bill represents a cause in which the people believe."

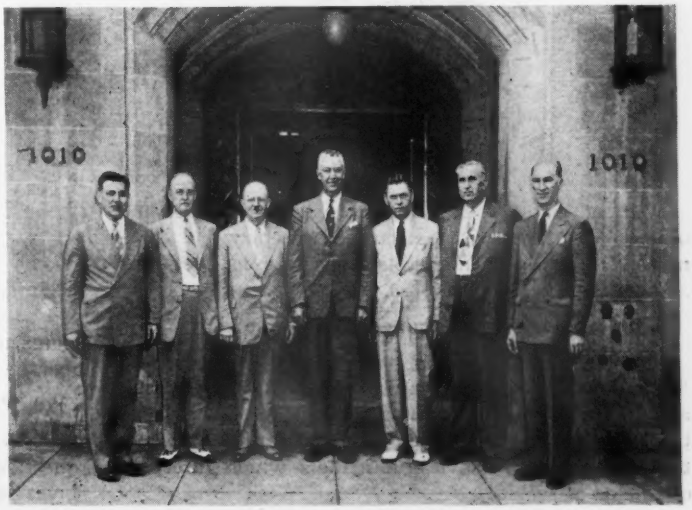
To be most effective, an organization must include in its membership a majority of the profession which it represents. An effective organization is usually one which has a high degree of membership responsibility and participation. My only fear with regard to our national office has been that too much of the responsibility and the work of the Association would be left to the national executive secretary with the result that our widespread interest, responsibility, and participation of recent years would cease to function.

After Ten Years

Lastly, effective organization requires unified action. At times differences become matters of principle and of such importance that they cannot be reconciled, but these times are rare indeed. There are issues which permit full and free discussion on the part of the entire membership. There are other issues which are so immediate that decisions must be made by the leadership of an organization.

I hope that the entire membership of the American Vocational Association will secure complete and accurate facts on the work of *their* organization and then answer the questions: "What do I receive in return for my membership fee?" and "How can the work of my organization be made most effective?" If every person engaged in the vocational education movement will think through these two questions to their logical conclusions, we shall have not only a larger organization, we shall have a much more effective organization.

As I look back on ten years of accomplishment, the American Vocational Association program has surpassed my fondest expectation. Particularly in the area of representation in the educational councils of the nation, our Washington office has performed a magnificent service. Each civilian engaged in vocational education work has a responsibility for maintaining a strong national Association to which our men and women in military service may return.



To 1010 Vermont Ave., the Washington Headquarters, come numerous committees to work on AVA problems. One recent group, left to right: C. L. Greiber, state director, vocational education, Wisconsin; L. H. Dennis, executive secretary; Charles W. Sylvester, director vocational education, Baltimore, Md., and AVA treasurer; Ralph H. Woods, state director, vocational education, Kentucky; M. D. Mobley, state director, vocational education, Georgia, and AVA president; Fred A. Smith, state director, vocational education, Arkansas; and George H. Fern, chief, civilian training branch, War Department, and AVA vice president for trade and industrial education. Mr. Woods and Mr. Smith are past presidents of AVA.

10 Benefits to You from AVA Membership

1. The prestige of belonging to a strong professional organization.

The AVA, with nearly 25,000 members in all states, D. C., Hawaii, and Puerto Rico, is the second largest U. S. educational organization.

2. A spokesman for you in matters affecting congressional action.

Your executive secretary and national officers work constantly with House and Senate committees. They promote legislation such as S 619; they oppose bills which could affect vocational education adversely.

3. Representation for you in the educational councils of the nation.

AVA leaders and the executive secretary speak for you on advisory committees for Federal agencies. They work with the NEA, American Council on Education, and other groups on national education issues.

4. Contact for you with national organizations.

With national farm, labor, industrial, welfare, and other associations, your executive secretary and committees maintain friendly relations. National programs are developed and promoted.

5. Your own field explained and promoted.

Separate folders have been prepared describing Home Economics, Agricultural, Trade and Industrial, and Industrial Arts education. Others are in preparation. Your national research and publications committee has created these useful leaflets which interpret our fields of service.

6. Opportunity to work with others for the advancement of vocational education to meet basic human needs.

AVA has many committees. These interlock with numerous state and local committees in which thousands of members participate.

7. Research results handy for your use.

Do you want help in evaluating your agriculture program? Use an AVA bulletin. Do you want to explain area schools? Turn to another AVA bulletin.

8. Monthly exchange of professional intelligence through the American Vocational Journal.

You receive a minimum of 330 pages of text per year. Through the pages you keep abreast of vocational education progress and developments in every state.

9. Annual exchange of professional information at national AVA conventions.

At a typical AVA convention over 3,000 members have a choice of hearing 300 speakers at 75 sessions.

Commercial exhibits display latest books, teaching aids, and equipment. The AVA meets in various sections of the country so that a maximum number of members can attend.

10. Protection from unsound offers or programs.

Many letters come to AVA headquarters asking questions about organizations, products, etc. AVA gives reliable and helpful advice.

Building up the AVA

ROMANTIC, colorful Mexico has produced a very practical method for reducing illiteracy. It is proposed that every person who can read and write shall teach one other person to read and write!

Members of the American Vocational Association can learn a lesson from our southern neighbors. Let each AVA member be responsible for at least one additional member for the year 1945-46!

In order not to miss the first issue of the *American Vocational Journal* in the new membership year beginning December 1, be sure to get next year's memberships to the Washington AVA office not later than November 15, and earlier if possible.

Here are some additional AVA membership facts.

Enrollment by services: agricultural education, 7,650; industrial education, 6,355; home economics, 5,125; industrial arts, 1,583; business and distributive education, 636; rehabilitation, 112; guidance, 94.

Industrial arts membership shows the largest recent increase; up more than 600.

Southern states Negro AVA enrollment totals 1,408.

State with the most members: Illinois, 1,916.

State with the largest number of vocational agriculture members: Texas, 602.

State with the largest number of home economics members: Illinois, 534.

State with largest number of industrial education members: New York, 528.

State with largest number of business and distributive education members: Illinois, 90.

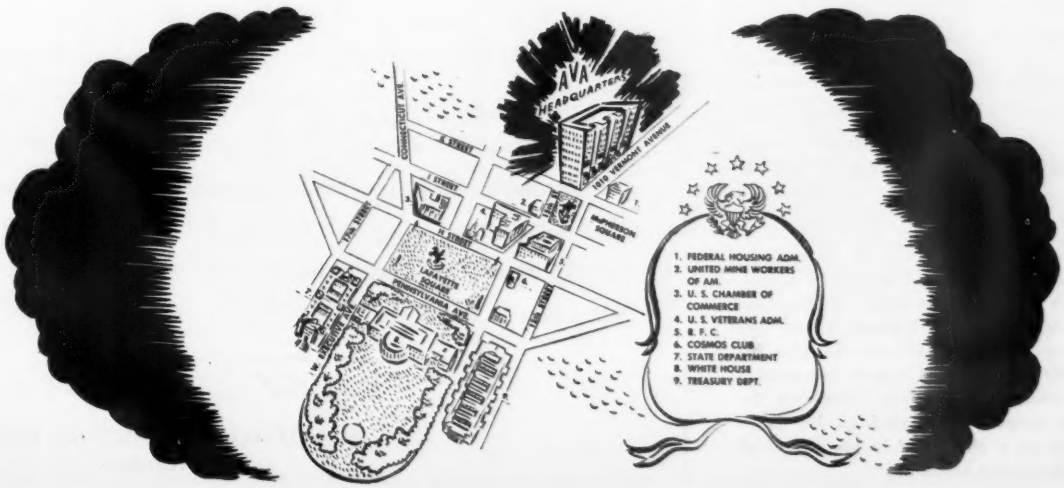
State with largest number of vocational guidance members: New York, 37.

States with largest number of life members: New York, 135; Wisconsin, 61; New Jersey, 60; Texas, 59.

AVA *Membership Analysis*

State	11-30-44 Total	6-30-45 Total	Life Members
Alabama	617	462	1
Alaska	1	1	—
Arizona	68	73	—
Arkansas	449	623	7
California	917	911	17
Colorado	170	109	1
Connecticut	284	309	2
Delaware	130	129	1
Florida	625	652	2
Georgia	1283	1159	8
Hawaii	—	—	—
Idaho	124	78	1
Illinois	1854	1916	16
Indiana	632	603	5
Iowa	481	440	2
Kansas	219	259	5
Kentucky	460	435	9
Louisiana	172	104	3
Maine	93	108	3
Maryland	460	421	13
Massachusetts	968	979	6
Michigan	373	369	8
Minnesota	378	373	7
Mississippi	564	563	1
Missouri	541	552	3
Montana	—	60	—
Nebraska	285	238	—
Nevada	41	41	—
New Hampshire	47	—	—
New Jersey	464	513	60
New Mexico	113	104	—
New York	1650	1694	135
North Carolina	634	776	4
North Dakota	88	113	—
Ohio	926	795	13
Oklahoma	531	461	—
Oregon	115	112	1
Pennsylvania	1289	1203	13
Puerto Rico	301	313	—
Rhode Island	24	27	—
South Carolina	609	587	1
South Dakota	109	129	—
Tennessee	685	648	8
Texas	1004	1288	59
Utah	56	190	—
Vermont	67	61	—
Virginia	686	592	9
Washington	468	363	—
Washington, D. C.	193	204	10
West Virginia	273	173	2
Wisconsin	1058	941	61
Wyoming	69	67	—
Canada	1	10	—
Cuba	—	1	—
Life Members	*14	*14	*14
Totals	**23,663	**23,346	551

*Discontinued, transferred, or deceased.
**Including Life Members.



IN BRIEF

Farm population is reported to be lower than at any time in the past 35 years; farm production well above peacetime peaks. Training pays dividends.

Put FCC's recent radio band allocations into your postwar thinking. Vocational schools can share in operation and maintenance of stations using 20 channels set aside for education. Thousands of servicemen must be trained and retrained to install and repair new type receivers for the hundreds of new FM and television stations.

"The disclosure that fake colleges and fly-by-night vocational schools are springing up on a nation-wide scale to mulct war veterans is a matter that deserves prompt and decisive action by state and local authorities."—*New York Times.*

Surveys show between 2,500,000 and 3,000,000 physically handicapped workers available for employment. Vocational training can improve their employability.

There's a U. S. Employment Service office near you. Or there should be. The number of offices has recently been expanded from 1,507 to 2,103.

Educational institutions are among those entitled to discounts and high priority on war surplus real estate Uncle Sam is now selling. For details look up Surplus Property Board regulation No. 5.

With war ended in Europe, GI schooling by correspondence is booming. The soldier or sailor now has a choice of 230 texts practically all of which are based on editions published by standard book publishers. At the high school level are many self-teaching textbooks.

"Woodman, farmer, and FFA do not spare that tree," asks WPB. Pulpwood and lumber are urgently needed for the war against Japan.

"Let's Keep Our Schools Open Evenings and During Vacations," urges George H. Fern, AVA vice president for trade and industrial education, in May-June *School Management.*

It is literally smart to go to school. Results of a 20-year study at Teachers College, Columbia University, confirm previous evidence that one can raise his I. Q. by continuing in school. "An adult's measured mental ability," declares Dr. Irving Lorge, "is related to his intelligence as a child *and* to the extent of his subsequent schooling."

For Peace more than for War

A professor in a Midwestern college said recently in a public address that Vocational Education was the cause of the war. The professor tuned in late. The thing that caused the war was the selfishness and greed and lust for power in the hearts and minds of men without either conscience or character.

These warmakers shrewdly sought out the most useful tools they could find with which to promote their unholy schemes. They employed many adaptations of the automobile, the airplane, and other mechanical appliances—all useful in peace—to the diabolical business of killing men, women and children, and the destruction of nations.

One might as well say that the internal-combustion engine was the cause of the war as to say that any system of education which trains men to build and operate and service machines—Vocational Education—was the cause of the war.

It is conceivable that the professor was fumbling for some way of saying that the educational system of the Axis nations regimented men and women severely and that only by such regimentation could their ill-conceived ends be served. If that is what he had in mind, we agree.

No one in Vocational Education contends that the job training necessary to the war effort prepares a man in all the areas of good citizenship. We recognize the fact that, "men do not live by bread alone." But we recognize the equally pertinent fact that without bread he doesn't live at all.

Vocational educators of this country do not support the idea of a vocational education system which regiments boys and girls, and men and women into vocations from which they cannot escape. They do believe that every good citizen should be vocationally and politically and spiritually competent, and that our country can build no more firm foundation for peace nor secure defense against war than to use its system of public education to that end.

C. M. Miller

State Director of Vocational Education
Kansas

Baltimore's program geared to serve students of varying abilities and aptitudes

multi-level Vocational Education

By **CHARLES W. SYLVESTER,**
Director of Vocational Education, Baltimore, Md.

PART 1

Many questions come to us about Baltimore's multi-level vocational program. They come to us from those who are asking themselves questions like these:

Why should boys and girls who don't succeed in high school be sent to the vocational schools?

Why should vocational schools that are geared to prepare skilled workers also be asked to train the semi-skilled?

Why do students leave school?

Why don't some students make normal progress?

We in Baltimore asked and are still asking these and many other questions. We have also sought solutions. We have now had nearly 20 years experience with a multi-level vocational program. This system provides educational opportunities for boys and girls of *varying* levels of abilities and aptitudes.

Our program rests on two foundation stones: 1, schools or courses designed for each of four levels of ability; 2, a thoroughgoing aptitude testing and counseling plan. My associate, Albert G. Packard, in another column describes the aptitude tests given this last year to more than 12,000 students.

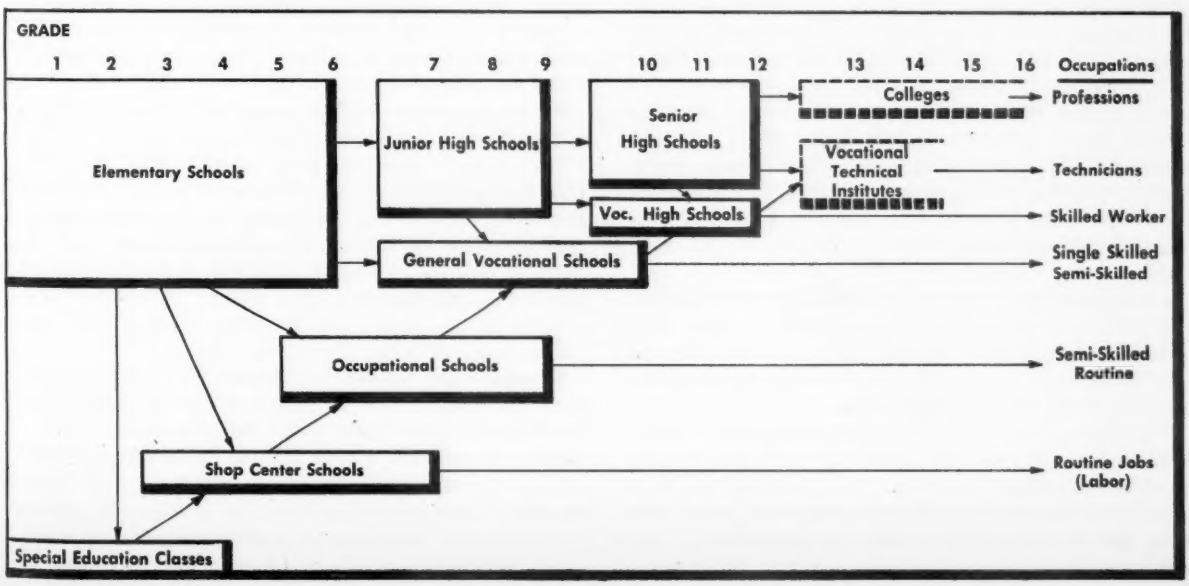
Our four level schools are: 1, Vocational High Schools (four) preparing students for skilled trades or for training as technicians; 2, General Vocational Schools (five), parallel to junior high schools, preparing for single skill or semi-skilled jobs; 3, Occupational Schools and Classes (24) preparing for routine or semi-skilled jobs; 4, Shop Center Schools and Classes (23) located in schools throughout the city to train those likely to enter routine or juvenile jobs.

Aptitude tests and school records help us guide pupils to these or to other elementary, junior, or senior high schools. Each of the four levels has its distinctive aims and types of pupils.

We know that nine of every ten persons in Baltimore will receive the major portion if not all of their education in Baltimore public schools. We believe each student has a right to prepare himself to earn a decent livelihood. We believe, furthermore, that the program should be adapted so that each student feels that he is succeeding in his school work to the full extent of his abilities.

Here is a brief description of each of our four level schools or classes:

Vocational High Schools: They parallel senior high



John finds going difficult—fails twice in arithmetic.

Teacher and principal decide to test John for aptitude.

John takes aptitude tests with several other students.

Counselor recommends John to an Occupational School.

Elementary principal talks to John's father and mother.

John finds he does best in shop for sheet metal work.

John is promoted to general vocational school year later.

John gets job as helper to man running a tinner shop.

schools as to age and ability of pupils, subject learning difficulty, standards of accomplishments, objectives, and curriculums. They are in session six hours per day in contrast to the standard high school five-hour day. Students are of normal I.Q. and possess special aptitudes. Courses fit boys and girls for entrance into skilled trades, industrial, and business occupations.

The Vocational High Schools give thorough vocational instruction. They prepare students for profitable and efficient employment in specific occupations. Two groups of students are admitted to the Vocational High Schools: a, those who qualify for the Vocational High School courses, of 10th, 11th, and 12th grades, leading to a Vocational High School diploma. These courses appeal to students who desire to acquire high school diplomas while preparing themselves for their chosen vocations; b, those completing the 8th grade, who enter two or three year specific vocational courses leading to a Vocational School diploma. These courses are designed for students who desire to prepare themselves for employment and are not concerned with high school graduation.

All courses aim, also, to develop intelligent workers and good citizens, through preparation in those subjects which are closely related to the occupation, and general academic subjects which make for self-improvement and social adjustment.

The courses which lead to a Vocational High School diploma meet the Federal and state standards for vocational education, and also the standards for high schools. In addition to the laboratory or shop subjects, and related subjects such as mathematics, science, and drawing, each student will take three years of high school English, at least one year of mathematics on a high school level, one year of United States history, one year of science, and physical education.

Part-time cooperative training is carried on when satisfactory employment conditions can be arranged. For entrance, students must have satisfactorily completed the 9th grade, possess 90 I.Q. or above, be at least 15 years of age, and have average or better aptitudes.

General Vocational Schools: These schools prepare boys and girls for employment in single or semi-skilled industrial or business occupations. They provide a route through which students may be promoted to Vocational High Schools. Pupils are of junior high school ability and age. Many pupils in these schools enter employment at the minimum age (14 years with work permit in Maryland). All-day courses emphasize general skills in shops or laboratories, mathematics, science, drawing, English, social studies, music, physical education. If a student goes on to Vocational High School, he will specialize in the skill toward which his talents, tastes, and aptitudes are inclined. To enter a General Vocational School a student should have satisfactorily completed 6th or 7th grade, have an I.Q. of 85 or more, be 14 years of age, and have low average or better special aptitudes.

Occupational Schools or Classes: Prepare boys and girls for employment in jobs open to youngsters including non-skilled and semi-skilled business and industry occupations. Pupils include those who are slow in achievement, especially in the academic areas. They are often over-age. They must be at least 13, able to do arithmetic, and read at a minimum of 5th grade level, and have an I.Q. of 80 or above. One-half of

each day is devoted to shop or laboratory work; the other to academic or related subjects. For many pupils, instruction will be terminal, although some will be promoted to general vocational schools. Where special buildings are not available occupational schools or classes are often housed in regular elementary schools.

Shop Center Classes: For maladjusted, over-aged, and low or slow achievement pupils. This is terminal education for boys and girls who will enter juvenile or routine jobs. Pupils are admitted to these classes if they meet one of the following requirements: a, 13 years of age and 4th grade reading and arithmetic levels; b, 14 years of age and 2.5 grade reading and arithmetic levels; c, 15 years of age irrespective of reading and arithmetic achievements.

The pupils devote one-half time to shop or laboratory work; the other half to academic work. Some courses lead to junior sales and store jobs, others to industrial occupations. Classes are usually housed in elementary or occupational school buildings. A number of the pupils after a year's preparation enter upon a cooperative work-school program. They are readily accepted by stores and industries which have jobs for which the pupils have been prepared.

Parents' Viewpoint

A rather close articulation exists among these multi-level schools. Some pupils move from Shop Center Classes to Occupational Schools; some from Occupational Schools to General Vocational Schools; some from General to Vocational High Schools. Pupils also move from elementary, junior, and academic high schools into these various schools. Aptitude tests and school reports guide counselors in adjusting pupils to the programs where they can cope successfully with the work offered.

Many ask how parents accept this multi-level plan. When Johnny has failed in 5th grade reading twice or three times, and finds himself falling behind his classmates, his parents are usually ready for a change. When parents are told that there is another school where Johnny will be among his own age group, where his special problems will receive attention, where he can succeed instead of suffering the continual blight of failure, they usually welcome Johnny's transfer.

The community also welcomes the program. The patrons of these multi-level vocational schools and classes know that the pupils entering them are likely to succeed. Employers of skilled workers are reasonably certain that new recruits will be of high caliber and well trained. Stores and industries employing large numbers of single and semi-skilled workers know that pupils from the public schools will come to them familiar with basic tools and processes, and well schooled in the simple, basic arithmetic and English the jobs require.

Educators like to point to the successful products of their institutions. That is human nature. We talk much less about the "drop outs," those who have failed to find enough value in our programs to warrant their remaining in school beyond the legal age limit. But we in Baltimore, like teachers and administrators everywhere, are becoming more conscious of the "drop outs." Why do they drop out? Can they be induced to continue their education? Can we give them training useful to them and to their community?

The Baltimore multi-level plan of vocational education provides the answers for many of these questions. The results which were obtained over the years of its operation have proved its merit beyond any reasonable doubt. We believe in it. We are now formulating plans for its expansion in matters of buildings, equipment, and numbers of classes.

We are constantly improving our teaching and supervisory staffs, so that the pupils whom we serve receive the highest type of education commensurate with their abilities and interests.

The Aptitude Testing Program PART 2

By *Albert G. Packard,*
Supervisor, Division of Aptitude Testing

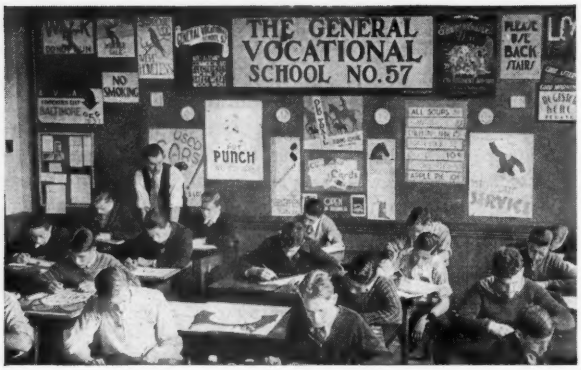
Baltimore's multi-level vocational program rests on an aptitude testing program. If special educational facilities are created for pupils of varying abilities, then special techniques must route the right child to the right school. How this is done Dr. Packard, colleague of Vocational Director Sylvester, here describes. —*Editors.*

It is the policy of present day educational systems to present equal opportunity for all individuals within their capacity. This predicates the establishment of educational facilities to meet the capacities of the individual. It is obvious that it would be inexpedient to place a boy of sixth-grade educational capacity in a highly specialized technical high school; or to place in a highly specialized trade school a boy lacking both the capacity to deal with mechanical situations and the educational background to cope with the specialized problems required in the related subjects.

In a large school system like Baltimore's it is quite obvious that many students are in need of guidance as well as training. Because they and their parents lack knowledge of their capabilities, pupils often attempt to continue in school work for which they are not qualified. Naturally, the result is failure. By careful study of the capabilities of such individuals, it is possible to place them in situations in which they may have better chances for success and promotion. Such adjustment is important not only for its immediate relationship to school activities, but also for future personal, social, and economic adequacy.

Weighing Chances of Success

Human behavior may be represented as a constellation of innumerable factors. Through the scientific process of sampling, certain of these factors may be combined into composites, termed aptitudes, which



Commercial art in a general vocational school. The vocational high schools prepare for trades requiring even longer training.

may indicate potentiality for particular types of education or training. The idea that everyone is fitted for some one occupation has been definitely exploded. When characteristics of any individual are studied, it will be found that there are some in which he excels; some in which he has little or no capacity. Combining these characteristics scientifically, it may be possible to indicate certain rather definite trends applicable to general fields of occupations.

It is the function of the Division of Aptitude Testing to determine, in so far as possible, potentialities of the individual based on scientifically determined characteristics, personal factors, past educational history, attitude toward school, socio-economic status, physical characteristics, personality, and interest. On the basis of all these factors a school classification, within the educational and vocational limits set up by the Department of Education, is determined in which the pupil will have the greatest chance for success.

Cases are referred on an educational record form. A battery of tests appropriate to the age and grade of the pupil is selected and administered by the specially trained staff. This battery includes tests of mechanical aptitude, clerical aptitude, art aptitude, music aptitude, sales aptitude, interest, and personality. Academic aptitude is derived from intelligence tests, standardized achievement tests, and school achievement.

Test for Many Factors

Fourteen strategically located test centers have been established in the junior high, senior high, and vocational schools. Pupils come to the center nearest their home or school, at a specified date and time. Where there is a group of ten or more students to which it is desirable to administer a battery of tests, an examiner goes to that school. Special batteries for aptitude measurement in any particular field may be given to groups or to any individual pupil when requested by a principal. Individuals requiring special diagnosis are tested individually.

As indicated above, each aptitude may be considered a composite of many factors. No one test can measure all the factors involved in any one aptitude. For example, mechanical aptitude seems to be a composite of varying degrees of difficulty. It probably includes intelligence, academic achievement, grade level, mechanical ingenuity, coordination, manipulation, spatial perception, construction, and sensitivity.

Validity is the prime factor in determining the tests used. Many studies in the field where validity was tested through experimentation have been utilized.

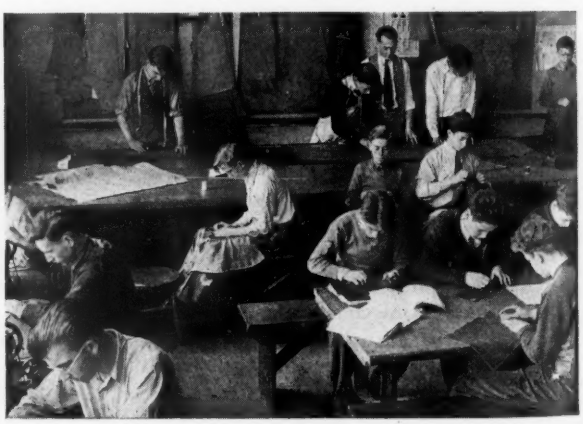
Checking on Results

Cases are summarized from the evidence secured. A classification in terms of school adjustment is indicated. The summary is mailed to the principal of the school in which the case originated for use in advising and guiding the pupil. Decision on transfer from one type of school to another must be made by principals of the schools involved.

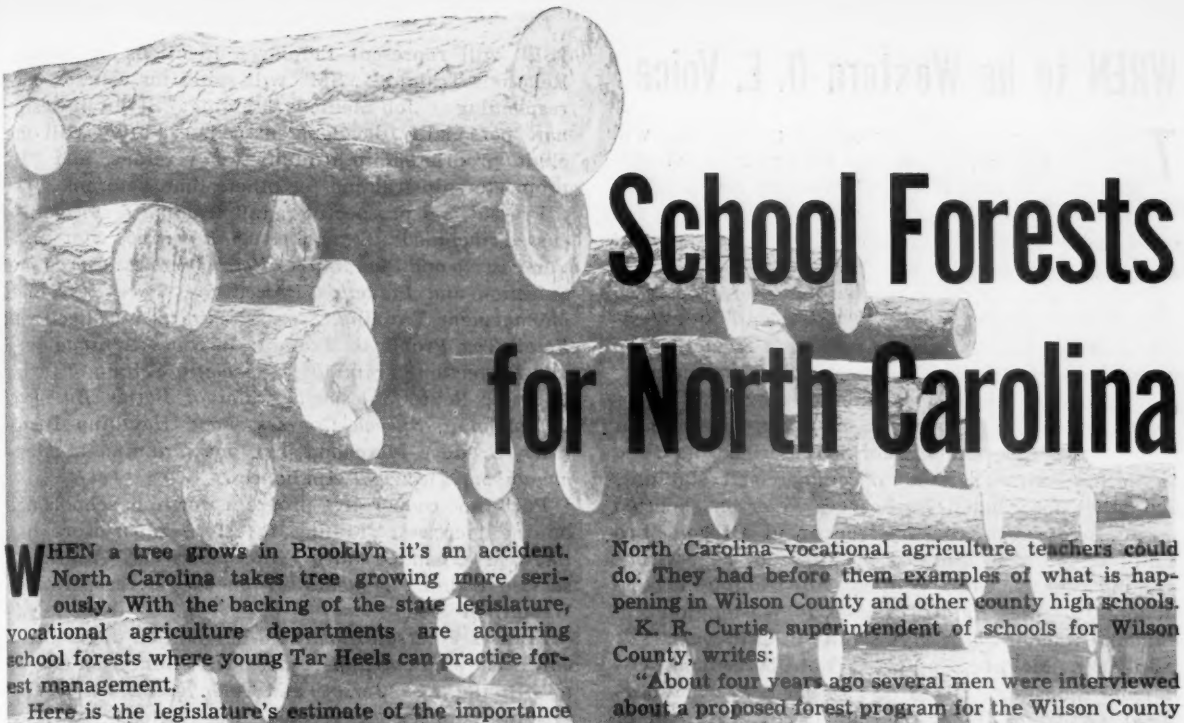
A careful follow-up procedure has been established to validate the program. Criteria for adjustment in terms of action taken on the basis of the classification, for follow-up and evaluation of the adjustment, and for accomplishment are being accumulated for statistical study. As the work progresses, additional tests will undoubtedly be included in the program.

The Division of Aptitude Testing was established February 1, 1938, with two trained examiners, a stenographer, and a supervisor. At present the staff consists of four examiners, two assistants, one stenographer, and a supervisor. During the school year 1944-45, over 10,000 cases have been examined and classifications returned to the schools. This service included the administering, scoring, and interpretation of a minimum of 40,000 measurements, since each individual classification included a composite of the findings of at least four tests. The scope of the work extends from the fifth grade in the elementary school through the 12th grade in the senior high school.

In addition to those in need of curriculum adjustment in the regular academic ladder, pupils in the vocational, general vocational and occupational school, the physically handicapped, and candidates for placement are included. In spite of the fact that pupils at times must be studied in groups, sight of the individual and his particular problem is never lost. We are interested in the welfare of each individual pupil. The door should never be closed to his advancement according to his particular capacities.



In occupational classes pupils become familiar with tools and materials used in everyday jobs such as cleaning shop work.



School Forests for North Carolina

WHEN a tree grows in Brooklyn it's an accident. North Carolina takes tree growing more seriously. With the backing of the state legislature, vocational agriculture departments are acquiring school forests where young Tar Heels can practice forest management.

Here is the legislature's estimate of the importance of this vocational program expressed in a 1945 act "to encourage the establishment of school practice forests in connection with vocational agriculture schools."

WHEREAS, woodland occupies some 50 per cent of the average North Carolina farm and the timber crop is exceeded in value only by tobacco and cotton; and

WHEREAS, all owners of woodland should know how to manage and market their timber as a perpetual and profitable crop; and

WHEREAS, demonstration on the land is an accepted feature of vocational training in agriculture; and

WHEREAS, long-time tenure is essential in demonstrating management of a long-time crop; Now, therefore

The General Assembly of North Carolina does enact:

Section 1. That with the approval of the State Board for Vocational Education and the county superintendent of public instruction, the principal of any vocational agricultural high school is hereby authorized and empowered to acquire by gift, purchase or lease for not less than 20 years, a parcel of woodland or open land suitable for forest planting, or comprising both types of land; such parcel of land to contain not more than 20 acres.

Section 2. That each deed to such land shall be made to "The ———— County Board of Education" of the county in which the school concerned is located and the title shall be examined and approved by the county attorney.

Section 3. That any school forest thus acquired shall be placed under the management of the department of vocational agriculture of the school, to be handled in accordance with plans approved by some available publicly employed forester.

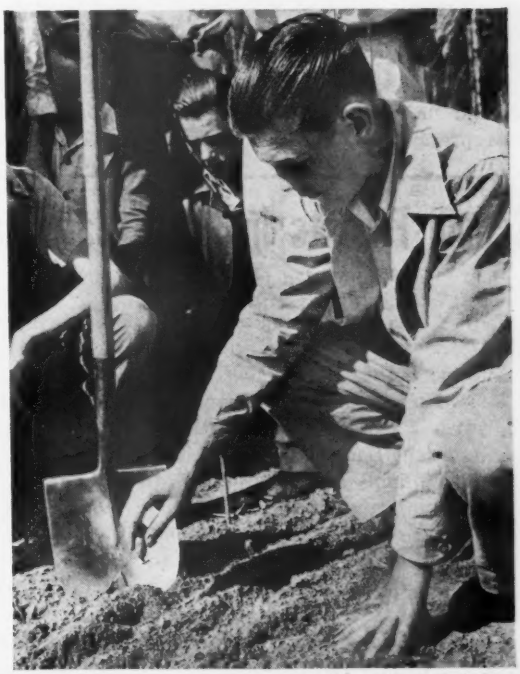
Plainly, the legislature was impressed with what North Carolina vocational agriculture teachers could do. They had before them examples of what is happening in Wilson County and other county high schools.

K. R. Curtis, superintendent of schools for Wilson County, writes:

"About four years ago several men were interviewed about a proposed forest program for the Wilson County Schools. The idea was to secure these forests and have them in the name of the Wilson County Board of Education for the vocational students in the various high schools. As a result of these efforts, it is a pleasure to report the following:

"Ten acres of abandoned farm land were deeded to the Wilson County Board of Education by Graham Woodard for the Lee Woodard School at Black Creek.

(Concluded on page 18)



Photos by J. K. Coggin

A seed goes into the warm, life-giving earth. Seedlings are transplanted to home farms or school-owned forests.

WREN to be Western D. E. Voice

The Wren, a new mimeographed publication, will be the melodious and far crying voice of distributive education in the Western Region. This was one of many decisions and reports marking the spring Distributive Education Conference held at Berkeley, California.

William R. Blackler gave all supervisors present a new 10-hour course, *Sales Personality Training.* Western state supervisors plan to present it to adult sales groups. They will also incorporate it in cooperative part-time high school sales training programs.

Many promising distributive education training programs were reported. California described its *Food Sanitation* courses offered to commercial restaurants and other food handlers. Frances Peterson reported a successful meat cookery course in Oregon. Leo Smith of Montana outlined his itinerant supervisory training courses. Good salesmanship training attracts students to *Sales Builder* courses in Washington and *Fundamentals of Successful Selling* in California.

Julian A. McPhee, California State Director of Vocational Education, talked on *Critical Issues in Vocational Education.* H. B. McDaniel, chief, Bureau of Occupational Information and Guidance, California, urged that business teachers and distributive education coordinators become acquainted with good guidance practices. Dr. McDaniel suggested training for store supervisors in *Interviewing and Testing Applicants for Selling Positions.*

A conference presided over by Willis M. Kenealy recommended a new plan of designating distributive education programs: Program "A" for pre-employment training courses; Program "B" for in-service training; Program "C" for clinics and conferences; and Programs "D" and "E" for supervisory training. After 1945, it was suggested that the terms Programs "D" and "E" be changed as follows: Program "SI" will represent training in how to instruct employees; "SR" will represent Employee Relations or Human Relations Training; "SM" will stand for courses corresponding to Job Methods Training; "SP" will designate personality development courses; "PV" will include proprietorship training for veterans, and "P" proprietorship training for others than veterans.

Present and prospective adult training services discussed included: *Economics of Retailing, Statistical Forecasting and Planning for Retail Business, Employee Selection and Induction Procedures, Store Personnel Management Training, Store Credits and Collections, Retail Tax Problems, Training in Store Arrangement and Protection, Training in Specialty Selling, Tourist Courses, Route Salesmen Training, Better Business Telephoning, Speech Courses, Food Handling Institutes, Produce Merchandising,* and *Training in Merchandising Electrical Appliances.*

Part-time cooperative programs for high schools are on the increase. Training for store supervisors has likewise expanded during the past year. Adult in-service training is definitely on the increase in the Western Region.

Frances Peterson illustrated her talk on distributive education with two films; *Distributive Education Comes to Millville, New Jersey,* and *Telephone Efficiency.*

State supervisors greeted Washington's institute training plan favorably. Fred H. Westberg described a 30 clock hour teacher training institute which reaches all of his coordinators just before school opens.

The conference resolved that distributive education supervisors and coordinators should use every effort to expand membership in the American Vocational Association.

Hosts were Ira W. Kibby, chief, Bureau of Business Education, California, and two of his assistants, William R. Blackler and Willis M. Kenealy. Other state supervisors attending: Leo Smith, Montana; R. Earl Thompson, Colorado; Edwin C. Gracey, Arizona; Frances Peterson, Oregon; and Fred H. Westberg, Washington. Walter F. Shaw, regional agent, organized and conducted the conference.

School Forests in North Carolina

(Concluded from page 17)

The boys have been setting about two acres each year in loblolly and long leaf pines, black locust, red cedars, and cotton trees.

"W. N. Harrell gave the Board a deed for 10 acres of cut-over woodland to be handled by the vocational students at the Saratoga School.

"D. C. Williams donated 10 acres to be handled by the vocational students at Rock Ridge School. These students have grown and set 10,000 loblolly pines, several hundred black locust and red cedars.

"W. R. Rogers gave a deed for 10 acres to be handled by the students at Stantonsburg.

"I have promises from W. N. Hackney and L. G. Whitley to donate forests for another school. It is our ambition to continue this effort until we secure 100 or more acres."

At Rock Ridge School, boys in the agriculture department grew 14,000 pine seedlings in the summer of 1943. They set out 10,500 pine seedlings in the school forest the following February, under the supervision of the agriculture teacher, D. B. Sheffield. Students also planted 2,500 pine seedlings in their home farm woods. A summer check-up showed 98 per cent of the seedlings growing. The State Forester paid high tribute to the project. Soon the students expect to study the growth again and cut out undesirable trees.

Here are some forestry problems taught in Wilson County: preparation and care of forestry seed plots, seedling selection and transplanting, estimating timber stands, marketing and cutting, fire control, conservation methods. Through studies and practice work in the school and home woodlands it is anticipated that students will become actively interested in conservation and reforesting idle acres on their home farms. This is important in tobacco raising counties because tobacco requires large amounts of wood fuel for curing.

Ben Johnson Retires Again

Benjamin W. Johnson receives from Howard A. Campion, ass't sup't of schools, Los Angeles, a bound volume of tributes.

THE *American Vocational Association Journal and News Bulletin* for September, 1940, carried a news item about Benjamin W. Johnson. He was retiring from the principalship of the Frank Wiggins Trade School, Los Angeles. A man of his caliber cannot remain inactive, so it was only a matter of months until the challenge of the war program found him again in harness. He was appointed to the California State Department of Education as a special supervisor of national defense training. The past four years have added another colorful chapter to the service record of this beloved educator. His influence has been felt in every part of California. In charge of teacher training for newly recruited instructors, he carried his program into shipyards, aircraft factories, munition plants, and wherever men and women were being trained to build the American war machine. His day and night schedule taking him to widely-separated communities would have taxed a far younger man. He still smiles. He is still the same genuine human helper of vocational educators.

Now, as the war approaches final victory and the War Production Training Program terminates, Ben announces with emphasis that this retirement will be his last. He was honored at a banquet in Los Angeles on Wednesday evening, May 23, when some intimates of his past 51 years of service gathered to again say "Thank you, Ben. Well done."

Mr. Johnson was presented with a beautiful leather album containing over a hundred letters from vocational leaders and associates. This beautiful and striking testimonial includes tributes from Dr. Studebaker, Dr. Wright, Mr. Hawkins, Dr. Dennis, and other national, state, and local leaders in the field of vocational education.

His catholicity of interests, his belief in his fellow man and his belief in himself will carry him through many more years of interesting and valuable living. His work as director of industrial arts and vocational education in Seattle, which began in 1894, laid the foundation for later experience as regional agent for the Federal Board for Vocational Education; as supervisor of industrial education in Delaware; supervisor of teacher training for California; principal of the Frank Wiggins Trade School in Los Angeles; and front line service in the war training program.

The American Vocational Association, of which Ben is a life member, and the whole profession of vocational education has profited by the contribution of this man. It extends now the hand of fellowship in saying a hearty "thank you."—*Howard A. Campion, Assistant Superintendent of Schools, Los Angeles.*

Southern California industrial education leaders attend the "Half-Century of Service" in honor of Ben's second retirement.

Unique courses teach adults what they want to learn

HomeMaKiNG

Flowers in Florida

FLORIDA is a land of beaches, grapefruit, oranges, and adult education for homemaking. Receipt of a fistfull of reports to the *AVJournal* prompts that fourth accolade.

In Jacksonville a "Poison Squad" of courageous volunteers tests new recipes before they appear in the Jacksonville Journal's *What's Cookin'* column.

In Miami wives and husbands bring their old furniture to finishing school and Dan Cupid determines course offerings.

In St. Petersburg enrollment of 516 women represents a 1,500 per cent increase since 1941. Former and present class members have formed a club.

Do you want to know more? Then read the following accounts assembled by Boletha Frojean, state supervisor of home economics for the *AVJournal.*

Jacksonville

What's Cookin' is popular with Jacksonville newspaper readers. Object of this short, informal and personalized column is to test recipes, guide homemakers to available and abundant food and help them plan wholesome meals. Volunteers in the testing kitchen contribute some new dishes. Others come from readers and from government pamphlets. Every recipe must pass tests of volunteer workers and guests who call themselves the "Poison Squad." Only when a recipe wins their approval for simplicity in preparing, use of foods available in local markets, nutritive value and taste bud appeal does it "make" the *What's Cookin'* column written by the Duval Vocational School home economics supervisor, Margaret Butterfield Long.

Women in sewing courses modeled what they had made during the "open house" program at Tomlinson Vocational School.

Miami Miracles

Old automobile spring units become settees, chairs, circa 1910, blossom into modern chairs and the weary wing chair freshens up in Miami's furniture finishing school. Adults have responded to the invitation to ransack attics and junk shops for furniture which can be given new life in the upholstery and interior decoration courses. Florida's shifting population, due to war and climate, has induced Hester G. Parker, home economics teacher in charge, to suggest "Take With You" slip covers. Equipped with flowered chintz covers, the war worker or vacationer can make, at slight expense, the most dismal rented furniture bright and cheery.

St. Petersburg Expands

One room for homemaking education in the Tomlinson Vocational School, St. Petersburg, has grown to three and soon another will be added to accommodate an enrollment now topping 500. Among units now offered are clothing, household mechanics, upholstery, weaving, home nursing, group feeding, nutrition, meal planning and preparation, and home decoration. Mrs. Anne D. Davis, teacher and supervisor, reports that upholstery and clothing have this year supplanted household mechanics in popularity. Evening and Saturday morning classes have been added for those who cannot be taken care of in the regular schedule.

This year former and present class members have formed a club. They plan eight meetings each year. Two will be meetings to which fathers, husbands, and sweethearts are invited.

Plans are also in progress for a consultation center

which will deal with homemaking questions. Homemaking students who have received additional and special training will conduct it.

Enrollment figures afford only a partial measure of the response to this program. More warmly human are these comments:

"This course has helped me mentally and physically. I have boys in service. I could not sleep at night. Now when I go home I am tired. I have new ideas and interests. I feel that the school has saved me from a nervous breakdown."

"In the past I have always been fortunate enough to have servants. Having to be without them I have learned through these courses that we must simplify our demands when we do all the work ourselves and that it can be done well and graciously through planning."

Amateur Cooks Course

Dan Cupid's voice also determines new courses in the Dade County (Miami) Vocational Homemaking program, according to Mrs. Katherine Barnes, instructor. With so many youngsters embarking on marriage a bride's course in Food Preparation won high priority. But the course had no sooner started when the name had to be changed. Homemakers of several years standing proved as eager to enroll as the brides. So now the course takes the title *Amateurs Course in Food Preparation.*

At first only one thing was attempted at a lesson so that each pupil might get individual attention from the instructor. Demonstrations of correct procedures were followed by pupil practice in actual preparation of some dish. Gradually, as good work habits were established, the number of preparations increased. Before the end of the course each family group of four planned and prepared meals at each lesson.

Throughout the series of 12 lessons these amateurs really learned to cook and the "whys" of cooking. They analyzed good and bad points of each piece of kitchen equipment and made tentative standards of selection for purchasing postwar equipment. Step by step teaching methods, individual supervision and simple, detailed but easily read directions helped these adults disprove all the old jokes about a beginner's mistake.

With furniture hard to buy, St. Petersburg adults bring their old furnishings to finishing school where they modernize them.

The "amateurs" now bring in husbands and fiances to learn to serve, carve, and wash the dishes. Those who can't bring in "their men" enjoy normal wholesome contacts with the opposite sex.

Outcomes went far beyond introduction of good techniques. Many girls had never had an opportunity to establish a normal new home; others had to break up their homes and part with their possessions. Frustration could result in serious maladjustment. They satisfied in part their homemaking desire by cooking in this class.

Veteran Rehabilitation in Films

EXPERTS say that 15,000,000 Americans must eventually make the transfer from military to civilian life. Motion pictures are now taking on the job of explaining the problems of rehabilitation and readjustment of the returning veteran. Six such films are now available through the YMCA Motion Picture Bureau, 347 Madison Ave., New York 17, N. Y. They are:

Postwar Jobs. 19 min. 16-sd-disc. guide. Rental, $2.00.

Produced by the March of Time. Describes the problems involved in achieving full employment and pictures the planning to date of business, industrial, and government groups to insure a maximum of jobs.

Back to Normal. 17 min. 16-sd. Service charge, $1.50.

Pictures how greatly improved prosthetic devices have aided amputation cases resulting from war and civilian accidents.

Out of Bed into Action. 17 min. 16-sd. Service charge, 50 cents.

Produced by Army Air Corps. Pictures convalescent program developed by the Air Surgeon and his staff to reduce greatly time lost by members of the Air Force because of illness and injuries.

Psychiatry in Action. 70 min. 16-sd. Rental, $3.75.

England's program of rehabilitation with service and civilian casualties of World War II. Pictures new techniques of individual and group therapy.

Winning Against Odds. 11 min. 16-sd. Serv. ch., $1.00.

Produced by Caterpillar Tractor Co. Shows how handicapped persons have been employed in its plants at productive jobs with great satisfaction.

Serving the Veteran, 6 min. 16-sd. Produced by Newsreel Distributors.

A radio interview between Roland R. Darling, director, Boston Job Counseling Service for Veterans and Alma Kitchell of the Blue Network. The subject discussed is the returning serviceman and his readjustment. Illustrated by flashbacks to drive home the salient points.

Rochester's new center ready for servicemen and war workers

After-School Counseling

By C. EVERETT WOODMAN,
Director, United Education Service,
and
H. C. SEYMOUR,
Coordinator of Child Services

FEW young people make definite educational and vocational plans prior to high school graduation. Those who have made definite choices often discover that they must make readjustments.

On this problem of after-school counseling Rochester, New York, began to focus attention as early as 1942. After a year of study the Youth Committee of the Council of Social Agencies recommended to the Council on Postwar Problems, guidance division, establishment of an educational counseling center. Said the guidance committee:

"This community needs a centralized counseling and information center for returning veterans. In the Rochester area approximately 1500 of the 35,000 men and women who have entered military service have been returned to their communities. (It is estimated that upwards of 4,000 veterans have returned.)

"These returning servicemen need counseling assistance, the chance to talk with sympathetic, self-trained counselors, the opportunity to discover more concerning their aptitudes, and to learn what educational and vocational resources are available to them in the Rochester area.

"While first attention will be given these returning veterans there is another group whose needs are pressing. A large number of individuals have taken jobs now important to the war effort, but whose importance will be lessened with the arrival of peace."

The Council on Postwar Problems recommended that the educational institutions of Rochester and Monroe County take immediate action. This council, in cooperation with the Voluntary Educational Council, appointed an advisory board representative of public and private schools and colleges.

A veteran, vanguard of 35,000 from Rochester area, receives guidance when he comes to the new adult counseling center.

On December 4, 1944, the United Educational Service for Educational and Vocational Counseling and Information opened. Its two-fold purpose: (1) to provide information and counsel to those individuals who desire assistance with their educational and vocational plans; (2) to suggest to the proper authorities the establishment of needed educational opportunities.

Supported through the voluntary contributions of educational institutions this service is available without charge to any agency, institution, or person in this area.

Services offered include: (1) friendly and skilled *counsel* regarding an individual's capacities, interests, educational needs, and vocational plans; (2) *testing* of abilities, achievements, and interests; (3) *conferences* with representatives of other agencies concerning educational and vocational problems; (4) *referral* of those individuals whose needs can be met more adequately by other agencies.

Policies Carefully Drawn

In making its recommendation to the Council on Postwar Problems, the division on education set forth the following basic policies:

1. There must be no over-lapping of functions of this proposed educational and counseling center with existing agencies.

2. The objective of this agency shall be upon counseling, testing, and guidance. The counseling service shall not in any way be associated with the terms "relief," "welfare," or "charity."

3. The agency must take the point of view that the individual is to be encouraged to use his own initiative and can be assisted only up to that time when he can function "on his own."

4. Those who direct the service and are responsible for its proper functions must be realistic in helping the individual who comes for service to realize his limitations as well as his assets.

5. In many instances, the individual who comes to the agency of his own volition will want information only. No attempt should be made to proceed beyond his request unless the questions raised indicate a need for more intensive service.

6. There must be no attempt to carry a huge case load over a long period of time.

Photography at Bok

Courses started for marine corps now popular with veterans

By ERNEST O. KOHL, Jr.,
Special Assistant to the Principal, Bok Vocational School

ONE course extremely popular with veterans in Philadelphia is commercial photography offered in the Bok Vocational School. At present the course operates as a unit in the Veterans Rehabilitation program. Returned servicemen are assigned for specific training within the various levels.

An outgrowth of the commercial art work, photography has grown in favor with the increasing popularity of photographic illustration in the commercial advertising field.

Philadelphia originally considered expansion of vocational education offerings into commercial photography in the late 30's. However, it was not until 1940 that it was actually introduced at Bok.

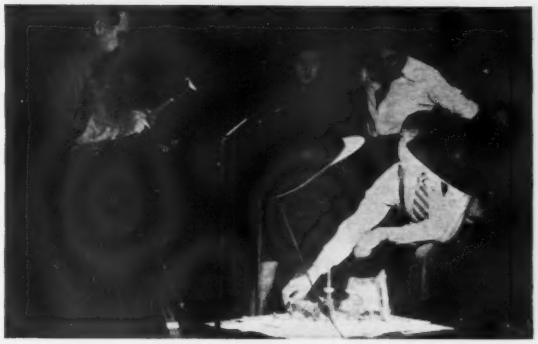
When war loomed ahead, the Marine Corps applied for and was granted permission to use the school facilities for a course in basic military photography. Three successive Marine groups took 400 hours of instruction. Upon the completion of laboratories within military establishments, the Marines withdrew and the activity became a part-time trade preparatory course open to civilians. High school graduates and adults assigned by the State Bureau of Rehabilitation were chief sources of students.

Modern Equipment Acquired

In a 1935 survey the School District of Philadelphia was fortunate to have the services of an excellent trade advisory committee. In 1940 this group came together again and gave freely of its time in the preparation of a suggested course of study and equipment specifications. A fully qualified commercial photographer with previous teaching experience in private schools was obtained. He organized the laboratory into two areas: one end to retouching, washing, drying, and mounting; the other a studio, including suitable flood lights, furniture, back shields, opal glass boxes, reflection boards, and cameras. In addition to the general laboratory, six small dark rooms and one large dark room were constructed directly across the corridor. These rooms were equipped with stainless steel wash trays, and specially designed tables constructed in the school shops; circulating hot, cold, and ice water was provided. At each work station there are printers and safe lights. A "light lock" protects the entire unit.

The basic course, originally planned for the armed forces, has been modified to provide instruction in three different fields or levels: The first level (the

in the well-equipped Bok commercial photography section.



Instruction is very attractive to returning veterans.

Portrait photography is one of three levels of instruction.

Darkrooms have modern equipment; hot, cold, ice water.

NEW BOOKS & MANUALS FOR SHOP COURSES

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Outstandingly thorough, clear explanations of all fundamentals, including the necessary math., by a well known "ham" and teacher. Practice Problems. Illus. $3.00

Principles of Radio for Operators *By R. Atherton*
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Shop Job Sheets in Radio *By R. N. Auble*
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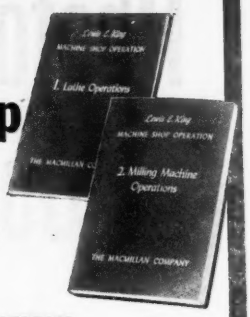
FOR MACHINE SHOP



Machine Shop Operation
By Lewis E. King

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Prepared by a master toolmaker who is also an experienced teacher, these manuals contain all the information needed for the skillful performance of every lathe and milling machine operation. Not only are they unusually complete, containing much practical advice and many useful "tricks of the trade," but are also expertly organized for greatest teaching efficiency. They enable the teacher to keep each student effectively working and progressing to the full extent of his individual ability throughout the shop period, and to get the maximum production from the class as a whole with a minimum of mistakes, waste or damage to shop tools and machinery. Each manual is fully illustrated. Each, $1.75

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Photography at Bok

(Concluded from page 23)

basic course) includes newspaper photography. Mastery of the following units is required of all at this level: fundamentals of photography, use and care of cameras, lenses, chemicals, proper selection of film, adaptation of papers and processes of printing, enlarging and reducing, intensification and reduction of negatives, and flash light photography.

The second level is portrait photography. Students study posing, special lighting, use of spots, home portraiture, theatrical photography, retouching and coloring.

The third level—commercial photography for advertising use, includes a series of advanced problems, many of which build on those covered in levels one and two; arrangement of furniture, selection of proper media, grouping of objects, back lighting, developments of high lights, and accentuation of specific parts suitable for catalog illustrations. Copies of accompanying photographs illustrating the facilities have been made by pupils.

Supplementing laboratory work, students receive practical assignments such as photographs of interiors and exteriors of buildings. In a large city school system, sufficient subject matter is always available. The Bok School itself, with 23 trade activities, challenges the commercial photographer's ingenuity. Illustrative material for guidance bulletins, pictorial history of school activities, illustrations of instructional procedures, photographs of news and athletic events all do duty as pupil assignments.

Completion of Course

Trainees assigned may complete one or all three divisions upon the recommendation of the guidance counselors. Satisfactory completion of the first level requires 1,440 hours of instruction. Of this time, seven-eighths is devoted to actual trade practice, one-eighth to related instruction. Completion of the entire course requires 2,880 hours, of which 275 hours are given to related instruction including shop mathematics, science, and materials of industry.

A splendid record evidences the course's reception by the trade.

Here and There

(Concluded from page 5)

Apprenticeship Limited

Tendency of employers to seek recognition of many additional occupations for apprenticeship came before a recent meeting of the Federal Committee on Apprenticeship. Veterans were warned that many trades do not "measure up to apprenticeship criteria." These criteria, reports a WMC release, rule out, as apprenticeable, "training programs for such occupations as salesmen, managerial positions, professional and semi-professional positions and clerical work." L. S. Hawkins, chief, trade and industrial education, represented the U. S. Office of Education.

Canada School Wins Cup

The IPI Silver Cup for the most attractively printed essay in the national contest sponsored jointly by the International Ink Division of the Interchemical Corporation and the National Graphic Arts Education Association, was won by the School of Graphic Arts, Montreal, Canada.

Strange Words

DOROTHY MINIKEL,

Midland High School
Midland, Michigan

"IN addition to Phenol U.S.P., we have available such substituted Phenols as Para Tertiary Butyl Phenol, Bis Phenol-A (Para Para Dihydroxy Diphenyl Dimethyl Methane) and Para Cyclohexyl Phenol."

Many Midland, Michigan, high school students entering the employ of the Dow Chemical Company meet language like this in their daily work. They must take such terms in dictation and transcribe them accurately.

In this city of 12,000, a high proportion of high school students find work with the Dow Company. Many seniors are employed on a cooperative basis in clerical positions. A coordinator holds periodic conferences to discover weaknesses of students. These weaknesses the teachers endeavor to remedy during the time the students are in school.

Analyzing company correspondence we found that approximately 60 per cent of the words were from the first 500 words in *A Basic Writing Vocabulary of 10,000 Words Most Commonly Used in Writing*, compiled by Dr. Ernest Horn. Only four per cent are technical words. But it is the four per cent that makes letters unmailable.

Students, plainly, need to become familiar with the technical vocabulary they meet on the job. To introduce them to these technical words we needed materials. The company supplied quantities of advertising leaflets, booklets, magazine stories, newspaper articles, and carbon copies of letters—long, medium, and short. We then classified these materials under such headings as industrial chemicals, organic solvents, pharmaceutical chemicals, aromatic chemicals, agricultural insecticides and fungicides, fumigants, plastic materials, dyes, dowmetal and magnesium. These classifications roughly parallel Dow departments. A cooperative student or a new worker entering a department can thus concentrate on materials containing the vocabulary common to that department. Materials were arranged in lessons so that a student can study on his own if a class and teacher are not available. Pamphlets and letters tell the work of a department and its products and also serve as drill and dictation material. In each lesson, difficult words are previewed for shorthand characters, syllabication, and spelling. Common rules for punctuation are reviewed. Typing drills for root words, common chemical prefixes and suffixes make the typing of such terms automatic and improve the student's typing rate.

Materials are counted by syllables to make them suitable for dictation and counted by strokes so that they can be used for timed-writing from print or transcription.

Schools will stand or fall in the way they are able to help their people become happy, healthy, skillful workers and citizens in the community. Industries will support the schools only to the extent that young people come to them from the school prepared for the types of work they will be called upon to do. By helping students overcome major difficulties they meet on entering Dow Company, we improve the effectiveness of our training and the satisfaction of our major industry with the products of our schools.

Outstanding Books for Vocational Training

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Lets the student see the finished project and each step in its completion. $1.60.

Baysinger and Schaal's
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25 original projects—wide variety of subjects—with shop drawings and adaptable designs. $1.40.

Henry Ford Trade School's
SHOP THEORY, Revised

Offers quick working knowledge of basic tools, machines, operations, and processes. $1.50.

Crouse's
AUTOMOTIVE MECHANICS

Covers all phases and includes specific material on trouble-shooting procedures and shop practice. In press.

Wolfe, Mueller and Mullikin's
INDUSTRIAL ALGEBRA AND TRIGONOMETRY

Applies mathematics to industrial and mechanical engineering problems. In press.

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NEWS

Industrial Education

Editor Parker

Philadelphia, Veteran Training: 180 veterans are taking full time vocational courses in radio, drafting, general electric, cabinet-making, machine shop, auto repairing, printing, welding, interior decorating, chemistry, commercial art, refrigeration, upholstery, photography, watchmaking, tailoring, plumbing, paperhanging, sheet metal and beauty culture.

Wisconsin's Many Fronts: The Wisconsin State Council of Carpenters and Joiners of America, A.F.L., has voted an annual $500 scholarship for a graduate carpenter apprentice to be selected by the Council. This apprentice will attend the Stout Institute at Menomonie, Wisc., where he will be enrolled as a full-time student and pursue courses in mathematics, science, English, public speaking, labor problems, psychology, physics, carpentry, economic history of the United States, economics, mechanical and architectural drawing, millwrighting, occupational and subject analysis.

Other graduate carpenter apprentices, it is hoped, will be able to take advantage of this training which the Wisconsin State Council is providing for graduate carpenter apprentices.

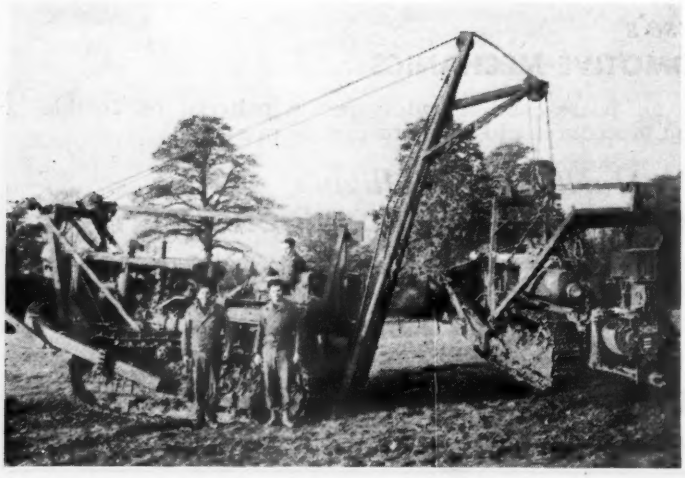
The Wisconsin Vocational and Adult Education School Directors' Association held a three-day conference at Fond du Lac, Wisc., April 25-27. One day was set aside for a joint conference with Veterans Administration representatives under the leadership of O. W. Price, chief, vocational rehabilitation and education division, and his assistants. Many problems with which local vocational school administrators have been confronted were thoroughly discussed and clear understandings were arrived at. A subsequent panel discussion cleared up many questions which local administrators of vocational and adult education wanted answered.

Kenosha is planning a new vocational building and has set aside some $500,000 for this program. Sheboygan has a building program under way. Janesville is erecting an extensive shop addition. Racine has just completed a very fine shop addition. Wisconsin Rapids is going to add a $300,000 building to its present vocational school building.

The Madison Vocational and Adult Education School, in cooperation with the Wisconsin Rehabilitation Division, is conducting a home economics class in nutrition and home management for 30 tuberculosis patients stationed at the county tuberculosis sanatorium. Sanatorium and the State Rehabilitation Division officials feel such a course will be very helpful to these patients, both men and women, when they are released and sent home.

The Madison Vocational and Adult Education School is also conducting a class in Mothercraft for young expectant mothers. The class meets two afternoons a week and is very well attended. The County Medical Association has worked in close cooperation with the school. Due to the shortage of doctors and the large number of expectant mothers in the community, many physicians have referred their patients to this class. The teacher, a registered public health nurse, visits member homes during the week. This is a five-weeks course of ten lessons. It has been going steadily since July 1, 1944. Students may enter at any time and get the complete course by attending ten sessions. In addition to their regular school course, they are being assisted in sewing and the school has provided portable sewing machines which are loaned for home use.

Due to the manpower shortage, all of the 50 vocational schools are experiencing an increased enroll-



FFA FOSTERED INGENUITY:

It serves Uncle Sam on many war fronts. The clever "pick-it-up" crane equipment didn't come as military tractor standard equipment. It was made in England from scrap metal. Sgt. Harry Lupher, who, with two other boys invented it, learned how to bend metals and machines to new jobs at Deer Lodge, Montana. On the back of the photograph sent to A. W. Johnson, his former vocational agriculture teacher (now state supervisor), Harry wrote, "Has a capacity of 10 tons. We are still trying to get it patented." Mr. Johnson tells us that Harry, as a student, worked out new devices to improve his farm machines and make farming more satisfactory through labor saving.

ment in the part-time field. Wisconsin law requires all child labor workers between 16 and 18 years of age to attend vocational school one day per week.

Kenosha, Manitowoc, Sheboygan, and Madison are conducting courses in management for the leading plant executives in their respective communities. These cities have jointly employed a prominent leader in this work, W. H. Stevenson of Chicago, Ill. Classes are well attended, and are warmly welcomed by plant executives. After the executives have had this management course, their foremen and superintendents take it. This course helps out especially in labor relations problems.

Massachusetts, Handicraft: The Informal Statewide Advisory Committee for Handicraft Education has held its second meeting of the year. It was reported that 45 different classes in 20 localities from Northampton to Plymouth are receiving instructions in rug hooking, decorating ware, wood carving and wood finishing, metal ware, weaving, sampler stitching. Special emphasis is being given to fundamental design and color.

California, Apprenticeship Growth: Robert Gilbert of Oakland is working with reorganized Trade Advisory Committees on revision of courses of study for apprentices. Loren N. Stevens, apprentice coordinator, also reports that Oliver Walsh and Van B. Lawrence, apprentice coordinators for Alameda and Berkeley, respectively, are using the same committees. Apprenticeship classes, now showing increased enrollment, are being conducted in plumbing, carpentry, molding and coremaking, boatbuilding, machinist, and tool and diemaking trades. Other courses are now being prepared and will have classes organized as soon as conditions justify.

Kansas, Janitor - Engineers: Because travel restrictions forestalled the usual five-day Janitor-Engineer Schools in each of three cities, L. W. Winkel, Service Man for Janitors, is conducting short courses for new janitor - engineers. Courses were held recently at Ft. Scott, Winter General Hospital at Topeka, and Wesley Hospital, St. Joseph Hospital, and Aero Parts Manufacturing Company, Wichita. The present schedule includes Boards of Education courses at Salina, McPherson, and Lawrence. As many other courses will be held as time permits in cities where an attendance of 10 or more janitor-engineers can be assured.

The class in comptometer operation in Kansas City has been another one of those unusual classes. It started in January with 12 students and has grown to 22 members.

Two leaders in visual education, Walter A. Wittich, University of Wisconsin, and Lt. James E. Brown, were leaders in a visual education conference held June 13 and 14 at the Pittsburg Teachers College, Pittsburg, Kan. Discussions, demonstrations, and displays featured the conference. Chairman was Otto A. Hankhammer.

Maryland: New courses started in March at Baltimore Polytechnic Institute include plastics, shop math, and industrial electronics. Diesel engine theory and practical shop courses were made possible through a cooperative plan worked out last spring between the War Production Training Office and the Alban Tractor Company.

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Presents methods of teaching for permanent outcomes; emphasizes the importance of learning by thinking, and the need for the formation of right thinking habits in students.

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A practical book, covering the important facts and procedures which the student of airplane mechanics must know to keep planes in good working order. The book is of the same high standard as the author's popular "Airplane Maintenance."

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By John T. Shuman and Lewis H. Bardo

A guide for the training of students in machine shop practice. Presents factual material on lathes in a clear, concise and practical way by means of questions and answers.

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VOCATIONAL EDUCATION FOR A CHANGING WORLD
By the late F. Theodore Struck

Covering the entire field of less-than-college grade, this book discusses the past development of vocational education, its present function, and future application.

(1945) 550 Pages $3.50

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Futures in Glass

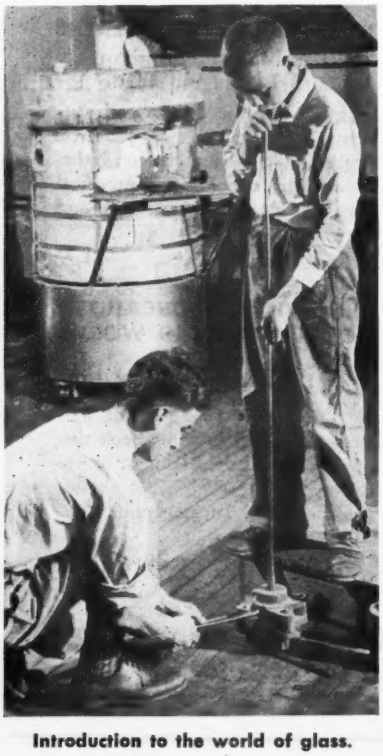
Corning, N. Y., youth introduced to glass-making by industrial arts

By Jack Lyons and William Hin,
Students, Corning Free Academy, Corning, N. Y.

PRIOR to 1868, the village of Corning, New York, was a small lumber producing town without much hope for fame and good fortune. In that year, however, the equipment of the Brooklyn Flint Glass Works arrived by flatboat. The name of the company was changed to Corning Glass Works and by 1870 it was employing 100 people. Today that factory employs about 7,000 of the 17,000 inhabitants of Corning.

Is it any wonder, then, that more than half of the boys in Corning Free Academy, the local high school, are working, have worked, or will work in the Corning Glass Works? Although our wood, metal, machine, and electric industrial courses have had large enrollments, they did not adequately meet the student's need. In a glass town students in industrial arts courses need to know about glassmaking. Three years ago the course was started to acquaint Corning's students with the glass industry.

The glass shop is located on the ground floor in one wing of the wood shop. One wall of the shop is decorated with colorful student-made murals depicting scenes of industrial life. Long windows and blackboards cover two other sides. A huge floor map shows the sources of shop materials and their transportation routes to Corning.



Introduction to the world of glass.

Actual glass-working equipment consists of nine metal-sheathed tables each with its own glass lamp, glass furnace, and the tools used in modern glass industry. Each table is supplied with pipe lines through which pass the air, gas, and oxygen which mix to form the intensely hot flame of the glass lamp. The portable glass furnace, one of a very few in existence, was made in our school and has, in spite of its relatively small size, produced faultlessly and effectively.

Development of Glass

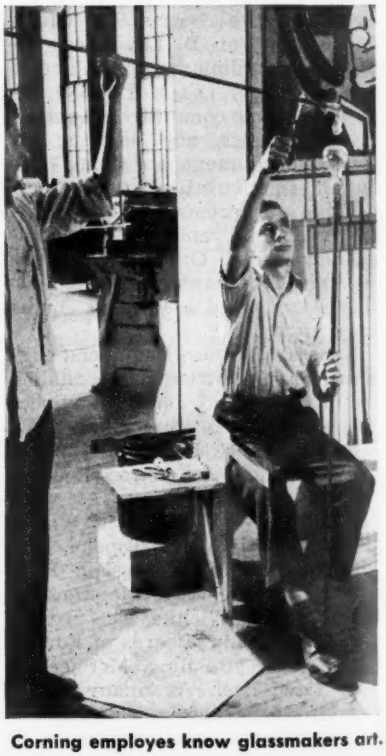
The course begins with the instructor's lectures on the history of glass. He begins with the Phoenicians' discovery of glass centuries ago and discusses its development up to the present. As the student's mind becomes enlightened upon the beginnings of glass, he gets blackboard drill on the types of glass and their particular uses. The student is then ready to start producing. Each class member has his own table and lamp and an ample supply of glass tubing. Now begins the practice of developing coordination between hand and brain; he is ready for practice in the fundamental principles of rotation, manipulation, cutting with a file, flaring, bending, and sealing. These students produce the apparatus we use in chemistry classes. They also become familiar with many of the myriad types of laboratory apparatus which Corning Glass Works supplies to laboratories throughout the country.

Seventy Per Cent Go with Corning

Instruction with the glass furnace began last winter. With the tools of modern glass industry, blow pipes, glass scissors, calipers, art boards for shaping and rounding, the student learns the ancient arts of "gathering" and "blowing" glass. He becomes familiar with the intense heat of furnace and red molten glass, with the timing necessary between gatherer and blower and with the idiosyncracies of glass at different temperatures.

Because he believes that "if the schools will cooperate with industry, industry will help the schools," Mr. McIntosh, the instructor, told the Corning Glass Works of his plan to open a glass shop in school. He received not only advice and the assistance of experts, but material help as well. Corning Glass Works helped him acquire raw material; they have given and are still giving demonstrations in the working of glass; and special instructors who are experts in their field come to teach the finer points of glass manipulation. Partially because of this assistance the cost of operating the glass shop has been kept at the absurdly low price of five cents per pupil per day.

Although not vocational in nature, this course has created so much interest in glass-making that 70 per cent of the students who have taken it have become employed in Corning Glass Works. Most of them have entered into work directly connected with the war effort, hence, we are proud of the particular manner in which our school is meeting the needs of students, community, and country.



Corning employes know glassmakers art.

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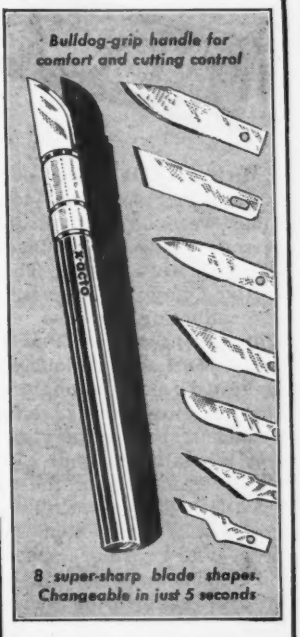

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Editor Webb

Business Education NEWS

California Innovations: A refresher course in Electric Appliance Merchandising, sponsored by the San Diego city schools and the Bureau of Power and Light, has just been completed by the distributive education section. Attending were appliance dealers or merchants planning on adding appliance lines after the war. Six two-hour sessions were held one night a week. Attendance was more than double that anticipated. Consequently, other series will be held. Material covered included: postwar volume; store layout and location; financing appliances; display and advertising; merchandising principles; service department operation; and adequate store records.

A new course in small business operation, designed to help both service men and civilians, is being offered by the San Diego distributive education division. Two evening meetings a week include lectures by retailers and other business executives, a real estate broker, a banker, an architect, and others, on various aspects of the small business man's problems. Other courses sponsored by the department include: merchandising arithmetic for department store junior executives, color and design in women's wear fashions, commercial art, soda fountain operation, and a merchandising course for plumbers.

Arizona, *Wren* Habitat: Responsibility for editing *The Wren*, Western Region newsletter for distributive education supervisors, during its first year has been accepted by Edwin G. Gracey, state supervisor. Associate editor will be Walter Shaw, regional agent, U. S. Office of Education. Enough copies will be run of each issue to supply every coordinator in the region with a personal copy.

Vermont, Insurance Course: Insurance underwriters of Burlington and vicinity met recently to hear about proposed instruction leading to certification as a life underwriter by the American College of Underwriters. Instruction, which would be sponsored by the distributive education division of the State Department of Education, would consist of the following courses spread over a recommended period of three years: life insurance fundamentals; general education, including economics; government and sociology; finance; and taxes, trusts and laws. Each course consists of approximately 30 sessions of one and one-half to two hours each.

John H. Dillon, Indiana teacher trainer in distributive education, has resigned to become personnel consultant to three industrial firms.

George D. Stoddard, N. Y., commissioner of education, will assume the presidency of the University of Illinois in June, 1946.

AGRICULTURAL EDUCATION NEWS

Editor Hammonds

Michigan, Workshops in Soils: During the past year, four workshops were held in Michigan with persons planning to teach adult-farmer classes in soils. This "learning-by-doing" instruction focused on conducting a course in *Soil and Water Conservation and Use.* The course outline previously planned suggested a functional approach. Each workshop was staffed by a teacher trainer, supervisor, extension specialist in soils, and a soil conservationist from the Soil Conservation Service. Prior to these workshops, these men spent two days with various specialists in soils, farm management, and agricultural engineering securing various pertinent information and skills. In each two-day workshop, a "guinea-pig" farm was studied. Plans were developed for field arrangement, fertilization, cropping program, cultural practices, measures for control of erosion, and drainage. Skills were developed in connection with using levels, recent soil-testing techniques, and tissue testing.—*Geo. P. Deyoe.*

Pennsylvania, Evaluation Study: Development of criteria for the evaluation of county or area supervision has been assigned as a special research project to Biron E. Decker, Erie County adviser, by H. C. Fetterolf, chief, agricultural education, Department of Public Instruction, and Henry S. Brunner, head, department of agricultural education, Pennsylvania State College. Mr. Decker's assignment keys into the national program of evaluation in agricultural education planned by the National Committee on Standards and the U. S. Office of Education. The study will be directed by a committee of area advisers, state supervisors, and teacher trainers.—*Henry S. Brunner.*

Pennsylvania Agricultural Education reports that Waterford High School started the teaching of agriculture in 1904. First agriculture teacher at Waterford was H. O. Sampson, now teacher trainer and supervisor for New Jersey. In 1913 the vocational agriculture teacher selected was R. W. Heim, now director of vocational education in Delaware.

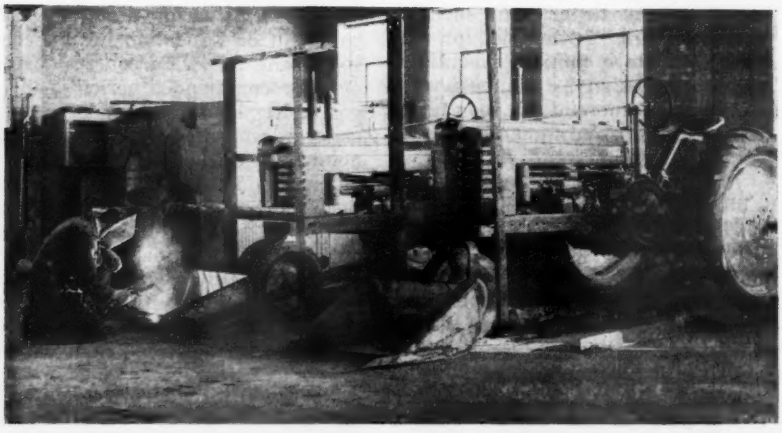
Massachusetts, New Salem to Build: Plans have been approved for an addition to the present high school agricultural department quarters in New Salem to consist of a combination agricultural classroom and shop 70 by 30 feet. Additional farm shop space will be used for the repair of motorized and non-motorized farm equipment. Estimated construction cost, $7,000 to $10,000.

Maryland, Awards: A woman and two men were cited recently for long and meritorious achievement in vocational agriculture at a University of Maryland dinner meeting of agriculture teachers. Specially designed charms were given to Harold F. Cotterman—28 years of service. Since 1917 he served continuously as vocational agriculture teacher-trainer at the University of Maryland and as state supervisor of agriculture 1917-23, and again since 1935. In addition he became assistant dean of the College of Agriculture in 1937, a position he still holds. An active supporter of all agricultural organizations, Dr. Cotterman has been for 10 years Maryland State Grange lecturer.

Earl C. Baity—teacher of vocational agriculture, Highland High School, Harford County, for 35 years. Mr. Baity, dean of Maryland agricultural teachers, is the only man now teaching who served prior to the Smith-Hughes Act.

Mrs. Elsie Hill Roland—teacher of vocational agriculture at Flintstone, Allegany County, for 28 years. She is also principal of the Flintstone School and has done much to improve that rural community.

Oregon, Tractors: Donation of $500 to the Oregon Association of FFA to be used as down-payments on each of two Ford tractors and plows has been made by R. M. Wade and Co., Portland. Chapters wishing to use this money toward the purchase of a tractor must submit a written application to the state office. Selection of two chapters to receive the $250 credit on a tractor will be based upon this application and the need for a tractor in the particular community involved. Specific plans for care of the tractor and equipment and method of paying the balance of the purchase will be given careful consideration by the committee.—*Vocational Oregonian.*



Welding equipment is a great necessity in farm shop. This welder adds a dirt scoop to tractors in the farm shop of a vocational agriculture department in Utah.

who's who

J. B. Hobdy, Alabama director of vocational education, and long time national leader in vocational education, has announced his retirement. **Robert E. Cammack,** agriculture supervisor, succeeds him.

V. P. McKinley, trade and industrial teacher, University of Alabama, also retires after long service to the cause of vocational education.

Charles A. Prosser, one of the earliest proponents of vocational education, first director of the Federal Board for Vocational Education, and more recently head of the William Hood Dunwoody Industrial Institute, Minneapolis, Minn., plans to retire from administrative duties in September. He will be succeeded by **Joseph R. Kingman, Jr.,** Dunwoody registrar.

A. F. Arnason has been named executive officer and director of vocational education in North Dakota succeeding **Edwin Ericson** who becomes full time director of rehabilitation. Mr. Arnason will make his headquarters at Bismarck.

H. A. Tiemann has accepted appointment as assistant superintendent in charge of adult and vocational education of the San Francisco schools. **E. C. Comstock,** former state supervisor of trade and industrial education, takes his place as Colorado director of vocational education.

Harvey L. Freeland, Hawaii director of vocational education, suffered fatal injuries in an automobile accident. Named acting director is **W. W. Beers,** agriculture supervisor.

George W. Morgenroth, new special supervisor, Essex County Vocational Schools, Newark, N. J., will develop additional curricula for veterans and other older students, and organize a school for oil burner, refrigeration and air conditioning service. He was formerly supervisor of war production training.

J. Gould Spofford, trade and industrial teacher trainer, New Jersey Department of Public Instruction, retired on June 1, 1945, after 26 years of service in the department. He has returned to his native state of Maine.

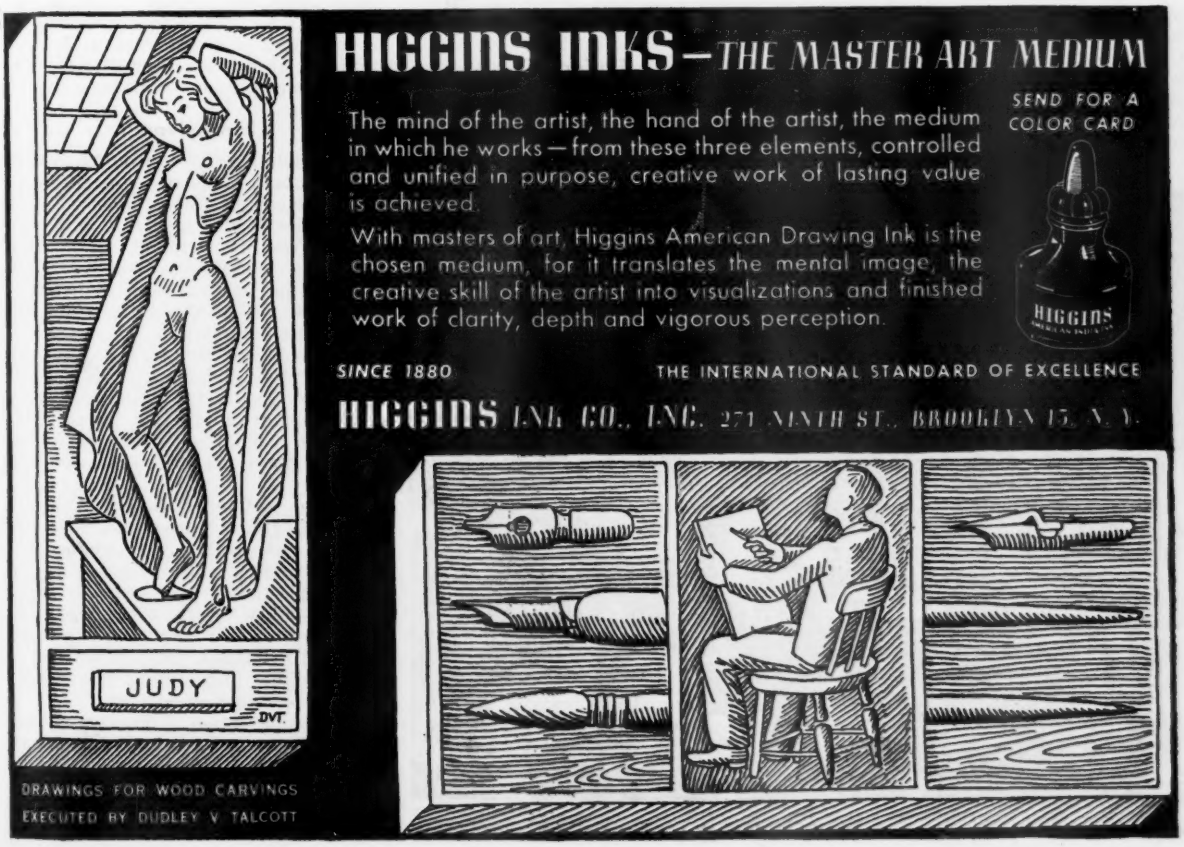
Joseph M. Fair, a supervisor of trades and industries, has been appointed to take over Mr. Spofford's duties. **Stanley Perkins,** war production training supervisor, fills Mr. Fair's position.

Franklin Connolly has been appointed supervisor of vocational information and guidance in the vocational division, New Jersey Department of Public Instruction. Mr. Connolly was schedule supervisor of TWI programs.

Walter D. Fuller, president, Curtis Publishing Co., has been renamed chairman of the committee on cooperation with education of the National Manufacturers Association.

John E. Whitecraft, formerly of Alfred University, has been appointed associate supervisor in the Bureau of Business Education, New York State Education Department.

Lt. Col. Robert H. Owens returns to Cleveland to become supervisor of veterans education for the Board of Education. In the national Selective Service office, Col. Owens handled many relations with education.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On the Nutrition Front

Reports from three states tell how home economics teachers promote the cause

HERBERT HOOVER once said that food habits were probably the most difficult habits to change. He spoke from experience.

Most home economics teachers will support his view. Nevertheless vocational home economics teachers throughout the nation are gallantly attacking the ramparts of public determination to "eat what they like and what grandma liked, too."

In battling for better nutrition, vocational home economics teachers work side by side with other teachers and other groups. From three states in three sections of the country—Indiana, Florida, and Pennsylvania—come the following examples of action on the nutrition front.

Indiana

Senior home economics girls are learning lessons about nutrition and child care by helping school teachers promote better nutrition practices among elementary grade pupils. It came about in this way. Indiana vocational home economics teachers are working on curriculum revision. One study problem listed was "Working with Elementary Teachers on the School Nutrition Program."

From the following suggested devices each participating teacher chose one for tryout: nutrition survey; making the school lunch program educational; source materials for elementary teachers; learning experiences for high school girls working with the elementary teacher; and animal feeding experiments.

Luella Williams, home economics district supervisor, Bloomington, Ind., who sends this report, writes that the teachers in Johnson County decided to ask their senior students to help evaluate nutrition materials for elementary teachers. Graded packets of useful materials were prepared. Miss Williams reports that home economics teachers now find themselves acting in the capacity of consultants to the other teachers on nutrition. As to the values for home economics seniors in screening material for elementary school use, she says, "What better way to check on their own nutrition information?" The teacher and her class did a nice piece of work with this and came out of the experience richer in knowledge and understanding.

Florida

Elementary social studies, vocational home economics, and rolling pupil-size kitchens—all these enter into Florida's drive for better nutrition. The point of entry was a state department curriculum guide on *Social Studies in the Elementary School.* Examination of objectives revealed many points where the elementary school teacher could benefit from help by the home economics teacher. Dorothy M. Leahy of the Florida State College for Women reports that the Home Economics Department met with the Elementary School Staff to discuss plans and procedures. Fields in which the home economics teacher could help were selected. Home economics teachers visited elementary grades to gain insights into the needs of the children and ability levels. Then she prepared suggested grade units, supplementary teaching materials and otherwise aided the elementary teacher. To provide for actual experience, a rolling kitchen, complete with equipment all of the proper height and size for children, has been developed.

To guide the work an outline has been prepared listing: 1, persistent problems for attack in social studies; 2, outcomes in social studies; 3, content, social studies; 4, problems to be developed by home economics.

Pennsylvania

Philadelphia has a County Nutrition Council. Much of its work channels through the Department of Home Economics headed by Helen O. Goodspeed. The Department employs a part-time nutritionist who is much in demand. She advises the directors and cooks of the Child Care Centers. She helps create the Department's Monthly Menu Service for all Child Care Centers and for the Child Care Laboratories in the public schools. The director and the nutritionist also prepared a pamphlet, *Nursery School Food, Suggestions for Preparation and Service.*

In one section of the city the nutritionist gives simple and practical meal demonstrations to underprivileged women. She also talks to parent-teacher groups, women's clubs, church clubs, and similar organizations on balanced meals, how to meet the food shortages, and how to stretch ration points in planning meals during the wartime emergency.

For sample copies of *Nursery School Food, Suggestions for Preparation and Service,* or the Monthly Menu, write to Home Economics Division, Philadelphia Board of Education, 21st and Parkway, Philadelphia, 3.

U. S. Office of Education

Home economics teachers promote nutrition through teacher training experiments.

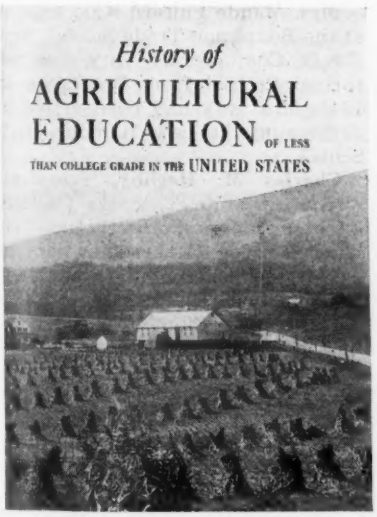
PASSING IN REVIEW!

BE patient if your copy of the *History of Agricultural Education* is delayed. The Government Printing Office finds it difficult to keep abreast of orders. This U. S. Office of Education Vocational Division Bulletin No. 217 issued nine months ago is now in its third printing.

Compiled by Rufus W. Stimson of Massachusetts and Frank W. Lathrop, specialist in agricultural education research, U. S. Office of Education, this bulletin contains thumbnail histories of vocational agricultural development in 48 states, Hawaii, and Puerto Rico. In addition, readers will find sections on "Federal Administration of Vocational Education Acts" and "Growth and Trends in Vocational Agriculture."

When Mr. Stimson retired in 1938 as state supervisor of vocational agriculture he took on this herculean task. Appointed research collaborator, he shared labors with Dr. Lathrop.

In Chapter 11 Mr. Stimson tells how the educational revolution leading to 9,000 high school agricultural departments began. On becoming director of Smith's Agricultural School at Northampton, Mass., in 1908, Mr. Stimson recommended selling the school dairy herd. He argued "that boys were coming in the morning from home farms bristling with dairy farming problems."



Many agricultural education leaders were contributors.

Soon word of this shift away from the traditional dormitory farm school to supervised home projects got around. A few years later this pioneer enterprise received a visit from a four-state group. As you will see by the names, all members were destined to play major roles in vocational education progress: L. S. H wkins (N. Y.) became first chief of the agricultural education service and is now head of the trade and industrial education service, U. S. Office of Education; Lindley H. Dennis (Pa.), director of vocational education in Pennsylvania and Michigan, now executive secretary, American Vocational Association; Lewis H. Carris (N. J.), first chief, trade and industrial education and rehabilitation services, later director of the National Society for Prevention of Blindness; William T. Bawden, editor of Vocational Education, professor emeritus, Kansas State Teachers College, and long a leader in industrial and industrial arts education; and Charles A. Prosser, first director of the Federal Board for Vocational Education. These men helped forward the concepts of vocational agricultural education later embodied in the Smith-Hughes Act, concepts which were foreshadowed at Northampton, Mass.

Experts in many national aspects contributed to this 648 page history: W. A. Ross writes on the FFA and subject matter in agricultural education; H. B. Swanson on teacher training; R. W. Gregory on part-time and evening instruction; W. N. Elam on New Farmers of America; F. W. Lathrop on research and also trends; the late C. H. Lane on contributions of the Department of Agriculture and livestock judging; J. A. Linke on the agricultural service in the U. S. Office of Education; L. H. Dennis on the American Vocational Association; and Erwin H. Shinn on the American Association for the Advancement of Agricultural Education and the Department of Agriculture.

This basic reference book may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., for 75 cents.

Developments in all 48 states and two territories are recorded in this bulletin.

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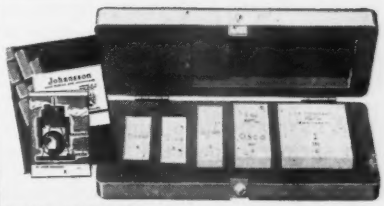

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Ford Johansson GAGE BLOCKS

Michigan's "At Home" Conventions: Roadblocked from its regular state convention by the travel emergency, the Michigan Industrial Education Society has found a way to carry on. Under the leadership of Andrew Althouse, chairman, program planning committee, M.I.E.S. is sponsoring a series of local institutes. M.I.E.S. provides $25 to each of six local communities to defray costs. Last spring institutes were scheduled as follows: Alpena district, Stanley E. Van Lare, chairman; Battle Creek district, Robert Hale, chairman; Dearborn district, Stephen Vanek, chairman; Marquette district, Howard Skinner, chairman; Mt. Pleasant district, Ward Segar, chairman; Petosky district, Arthur Treloar, chairman. Mr. Althouse thinks many of these district meetings will continue as regular gatherings long after travel restrictions are lifted. The program committee suggested many types of meetings including roundtable discussions, speakers, sections, etc. Some held day sessions with luncheon and dinner meetings.

Maurice Pancost, city director of vocational education, Lansing, is the newly elected M.I.E.S. president; Frank Dalton, University of Michigan teacher trainer, vice president.

M.I.E.S. is also developing plans to recognize classroom teachers for outstanding contributions. H. G. Silvius, Wayne University, is chairman of a committee to set up standards for judging candidate nominated by their fellow workers.

Kansas Membership Up. KVA and AVA membership totaling 225 in the late spring topped the 1944 roster by 43.

Ohio Regional Meeting: Robert C. McConnell, personnel and educational director, Delco, spoke to the Southwestern Ohio Vocational Association for Trade and Industry in Cincinnati on "The Personnel Manager and the Vocational School Graduate." William Kramer, president, appointed a committee to explore possibilities of greater service locally to association members.

Massachusetts Elects: Lawrence G. Drury, Newton Trade School, Newtonville, was elected president to succeed Dennis J. Brunton. Secretary for the current term is Helen M. Carter, David Hale Fanning Trade School for Girls, Worcester; treasurer, Lewis B. Robinson, Lawrence High School, Falmouth. For the Business Education chapter Marion Balboni, Newton High School, was elected chairman. Travel restrictions compelled cancellation of the annual convention scheduled for May 12. In place of the convention representatives of the various MVA Chapters held a business session in Boston.

Connecticut Reelects: Carl Gray, president, Grenby Company of Plainville, was reelected president of the Connecticut Section of the AVA. Author of the Connecticut Plan for Returning Servicemen, Mr. Gray was a featured speaker at the AVA Chicago meeting two years ago.

New Jersey Honors Appointee: Appointment of Arthur F. Hopper as acting superintendent of schools for Plainfield served as the occasion for a testimonial dinner attended by 263 guests. Educational leaders from all parts of the state paid honor to Mr. Hopper for his 25 years of service to industrial arts education culminating last year in his appointment as assistant superintendent in Plainfield in charge of manual arts and sciences. Robert A. Campbell, state supervisor of industrial arts education, presented Mr. Hopper with a fountain pen and a book bearing signatures of all guests. John A. McCarthy, assistant commissioner of education, acted as toastmaster.

D. C. Vocational Educators Hear Fern: An address by George H. Fern, new chief of the Training Branch, Civilian Personnel Division, War Department, featured the annual meeting of the District of Columbia vocational teachers on June 12. Speaking on the question, "Do We Have Equality of Education for Youth?" Mr. Fern pointed out that millions of youth in smaller cities and rural areas do not have vocational training opportunities to fit them for jobs in which they will be needed.

The DCVA honored L. H. Dennis, executive secretary, American Vocational Association, by making him an honorary life member of their association. Mr. Dennis, in expressing his appreciation, declared that the strength of the AVA and of vocational education depended on the vigor of state and local associations such as DCVA.

New officers elected were: Mrs. P. T. Beall, president; Albert B. Young, Inez Flanagan, and E. R. C. Hartley, vice presidents; Eleanor Misiek, corresponding secretary; Euclid Fleming, recording secretary; Gene Gottwals, treasurer.

IN TRIBUTE TO

Carl Karlstrom, a member of the Detroit Public Schools vocational staff for many years, died on June 14. He was for many years an active American Vocational Association member.

Edward E. Sheldon, adviser of the training department, Lakeside Press, Chicago, Ill., died June 4. A friend and enthusiastic supporter of vocational education, Mr. Sheldon was known as dean of printing education in Chicago. He wrote several texts and instructional pamphlets for printing courses.

Harry L. Rouse, principal, Poughkeepsie Trade School, Poughkeepsie, N. Y., died this spring. After extensive experience in industry, Mr. Rouse began teaching at the Mechanic's Institute of Rochester. He organized the Poughkeepsie Trade School in 1926.

Mrs. Maude Fulford Kay, teacher at the Boardman Trade School, New Haven, Conn., for 22 years, died last spring. Retired from Boardman in 1941, Mrs. Kay had been active in developing the new Hamden High School.

Charles M. Herlihy, president, Fitchburg State Teachers College, Fitchburg, Mass. Formerly assistant supervisor of Americanization in the Massachusetts State Department of Education, Dr. Herlihy became president at Fitchburg in 1927. Massachusetts vocational educators came to know him especially well during the summer conferences held at Fitchburg.

Mrs. Ora Richardson Bawden, wife of William T. Bawden, head, department of industrial education, Kansas State Teachers College, Pittsburg, Kan., died on Sunday, March 25.

Animated Blackboards

By **HAROLD P. YATES,**
Essex County Vocational Schools, Newark, N. J.

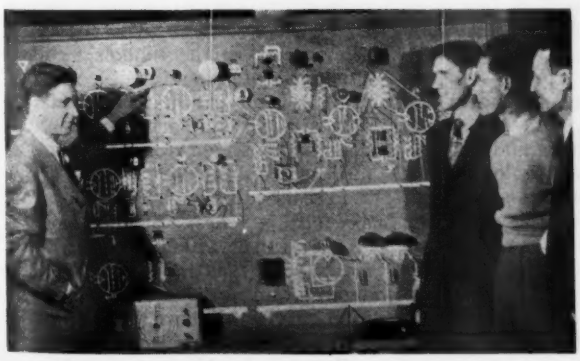
SEVERAL years ago we set up an industrial training project to prepare new employees for radio equipment assembly and inspection work. To provide flexibility within the factory and to meet almost continual changes in the production schedule of the various receiver and transmitter units being made, our trainees had to have a broad enough foundation of radio to work on anything from a simple emergency life boat transmitter to the highly intricate specialized aircraft receivers and transmitters.

One of the most serious problems was the difficulty of fitting together in the trainees' minds the "why" of radio theory with the "how" of construction. The idea which finally gave us this vital connecting link was an "animated blackboard."

As the photograph shows, the schematic symbols of all component circuits for both receivers and transmitters were painted on four by eight foot panels. Above each symbol, actual units of equipment were installed with their terminals brought out to pin jacks mounted in the proper positions in the painted symbols. By using wire jumpers we can connect any of the needed symbols to build up a theoretical radio circuit. Actually, we were using the real equipment under practical conditions. Anything from a one tube detector to an eight tube super heterodyne on the receiver board may be used, separately or in combination.

Each "animated blackboard" is complete in itself, with an individual power supply and a loop antenna. The coil mountings on both are quickly interchangeable for tests on various frequency bands. A small speaker is mounted in the upper right hand corner of the receiver board. All types of testing equipment may be demonstrated and any type of trouble can be induced and its effects studied.

Not only are these boards inexpensive compared to standard receiver or transmitter equipment, but they can also be developed for any specific problem in which the mental pictures of theory must be clear and useable. Smaller boards have been used to illustrate electronic tube characteristics, relay operations, and special meter circuits, and new units are now being designed for proposed courses on electronic control circuits and motor speed regulation.



Blackboard links "why" of theory to "how" of construction.

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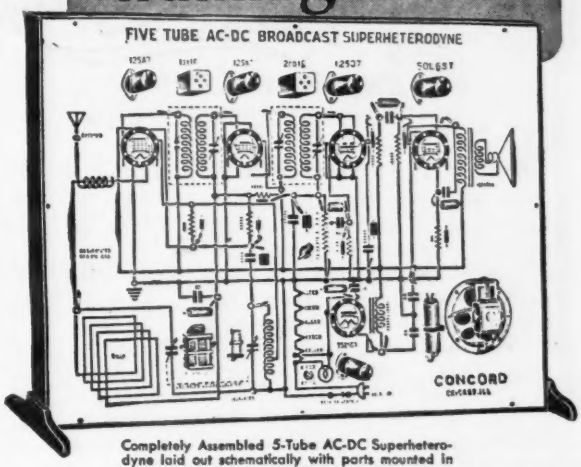

Completely Assembled 5-Tube AC-DC Superheterodyne laid out schematically with parts mounted in place and wired. Complete Instructions Included . . .
C.R.C.—81 . . . . . $57.50

In vocational schools—army, navy and civilian—and in high school and college shop and science classes Concord Radio Training Kits provide the means for practical, comprehensive radio and electronics instruction at the lowest possible cost. Expressly designed for modern radio training programs by experienced radio instructors and Concord engineers, Concord Training Kits can be used to build a progressive training program starting with fundamentals and progressing to the most advanced stages of receiver and transmitter operation, construction and repair.

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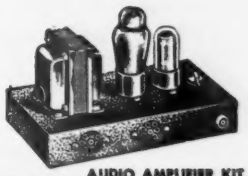

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NEW TEACHING AIDS

Roll Your Own Visual Aids

That word "visual aids" usually brings to mind commercially made films or filmstrips or charts from XYZ Co. Recently we visited a training center where they "roll their own." Gilbert G. Weaver took us through the super workshop that is New York's industrial education training center. We looked at wood gear mockups every bit as good as those developed by the Army and Navy. We saw photographic labs where industrial education teachers make their own slides. We saw on blackboards detailed colored chalk drawings of intricate machines. And then we saw how they were made by using a baloptican and a dressmaker's pattern stencil. All around the workshop were samples of teacher-made visual aids exhibited to more than 1,000 visitors.

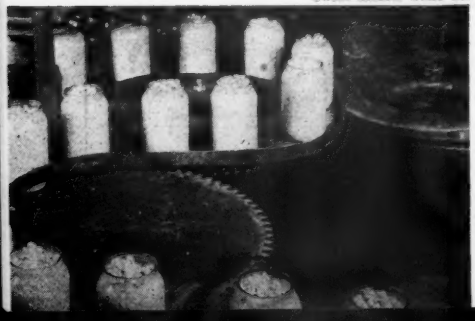
From Detroit comes an account of similar homemade visual aids displayed at a recent vocational education conference.

Teacher-trainer Weaver says that a teacher is more likely to use a visual aid if he has made it himself. That's logical.

Making motion pictures is difficult although some vocational teachers have done so. But mockups, chalk diagrams, slides, and slide films are well within the abilities of most teachers. Equipment and materials are within reach. Mr. Weaver adds that the teacher who makes his own visual aids is more likely to use visual aids of *all* kinds.

Scene from color film on glass packaging

Owens-Illinois Glass Co.



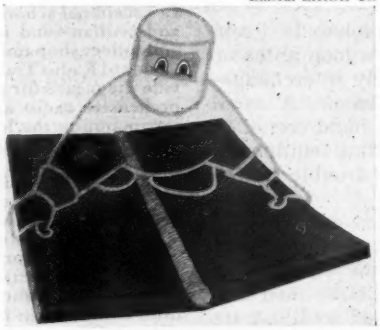
FILMS AND FILMSTRIPS

Glassing in Duraglass. 28 min. 16-sd-color. Producer: Owens-Illinois Glass Co., Toledo 1, Ohio. Free.

Cross section of many typical food processing and packaging operations. The story of modern container engineering and design combined with food and package handling techniques.

How to control arc welding distortion

Lincoln Electric Co.



Prevention and Control of Distortion in Arc Welding. 20 min. 16-sd-color. Produced by Walt Disney Productions for Lincoln Electric Co., Cleveland 1, Ohio. Free.

"Mr. Shrink" explains why metals expand and contract when they are heated and cooled, and how to prevent or control distortion.

Teach Them to Drive. 16 sd. Producer: Pennsylvania State College. Distributor: American Legion departments in 90 cities.

Objective: To "sell" adults on the idea of introducing driver training courses in high schools in order to improve safety and cut down accidents. More prints will be made when war restrictions are lifted.

Air Age Physics. 35. 15 slidefilms in set. Teachers Manual. $57. Produced by The Jam Handy Organization, 2900 East Grand Blvd., Detroit 11, Mich.

Mechanics with emphasis on air age problems. Fifteen subjects: Matter, units of measurements, force, force and velocity as vectors, uniform motion, uniformly accelerated motion, Newton's laws, gravitation, rotary motion, centrifugal force, work, energy, power, friction, simple machines.

Soldering Techniques. 35. 92 frames. Producer: The Jam Hanry Organization, 2900 East Grand Blvd., Detroit 11, Mich.

One of the subjects in the kit-set on aviation mechanics. Covers uses, methods, types, steps, safety precautions, etc.

(Continued on page 37)

AWARDS FOR FARM WELDING

A $37,500 Agricultural Award and Scholarship Program has been announced by the James F. Lincoln Arc Welding Foundation of Cleveland, Ohio. The purpose is to encourage agricultural producers and educators to study the process of arc welding and to extend the scientific and practical development of this process to farm operation and maintenance. Two divisions of awards and scholarships are offered for papers dealing with the application of arc welding to farm uses:

Division I for persons, or members of their families, actively engaged as agricultural producers of food or fibre products or in the raising and breeding of farm animals; Division II for persons engaged in agricultural education, such as professors, teachers in vocational schools or high schools, county agents, professional soil conservationists, and graduate students in agricultural engineering who have been so engaged for one year or more since June 15, 1943.

In each division the awards are as follows: first, $3,000; second, $2,000; third, $1,000; fourth, $750; fifth, $500; sixth, $250; 25 $100 awards, and 100 $50 awards. In each division there are also 15 scholarships of $250 each.

Papers should be sent to the Foundation secretary not later than June 15, 1946.

BOOKS

Blackboard Illustration. Raymond W. Perry. Peoria, Ill.: The Manual Arts Press, 1945. 48 pages.

Best use of the blackboard involves a knowledge of the best types of drawings, how to make a drawing actually illustrate a point, and synchronizing talking and drawing. This little booklet has many helpful hints.

Forums — Why and How. Emily Woodward, Director of Georgia Public Forums. Athens, Ga.: University of Georgia Press, 1943. 112 pages. $1.30.

Helpful suggestions from an author with wide experience in forum conducting in the South and in Britain.

Agriculture

Vegetable Production and Marketing. Paul Work. New York, N. Y.: John Wiley and Sons, Inc., 1945. 559 pages. $2.75.

Gearing into the national drive for more and better gardens, this textbook by the Cornell professor of vegetable gardening has been prepared primarily for students and teachers of agriculture. Covers wide variety of crops.

Industrial Arts

Woodworking Projects for Industrial Arts Students. Gerald Baysinger and Hartley H. Schaal. New York, N. Y.: McGraw-Hill Book Co., 1945. 151 pages. $1.40.

Sailboats, toys, games, and other things youngsters like to make. Drawings and how-to-do-it sketches. For elementary or junior high grades.

Household Mechanics, Industrial Arts for the General Shop. Earl L. Bedell and Ernest G. Gardner. Scranton, Pa.: International Textbook Co., 1945. 241 pages.

Second and revised edition of home maintenance jobs suitable for introduction through industrial arts instruction. Step by step procedures guide pupils in developing good habits of work. Many drawings.

Related Subjects

Labor in America. Harold U. Faulkner and Mark Starr. New York, N. Y.: Harper and Brothers, 1944. 305 pages.

Labor relations and organizations receive more and more attention in our schools This is a teaching tool that presents labor relations as a phase of the democratic process. Easy readability; tells evolution of unions.

(Continued on page 38)

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- Mathematics
- Basic Electricity
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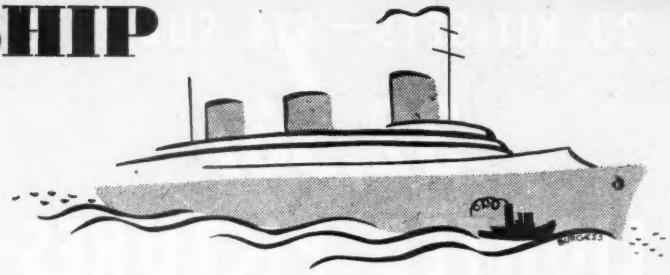

News

CAPTAIN Charlie Roper has ordered the SHIP's crew to stand by for election of officers this summer.

In the final paragraph of his "order of the day" Capt. Charlie writes: "Now that summer has come, wouldn't it be great fun if we could all get together in a quiet, shady resort for a week of rest, stories, *STEAKS*, and no exhibits?"

Makes us think of a line in the new Ernie Pyle movie, *The Story of GI Joe*. One GI says, "I'm dreaming in technicolor."

Other SHIP news:

George Cappeller, formerly with Milton Bradley Co., is now associated with Beckley-Cardy.

Commodore Paul Crabtree, formerly with Weber Costello, will open an office for Pacific-Asiatic Factors, Ltd., of Honolulu, in New York this fall.

Henry Frankenfield is back with Howard Hunt Pen Co. after a year in the Army.

Those who had the good fortune to know personally Calvin E. Brodhead, president, Brodhead-Garrett, were deeply grieved over his death. We extend to our worthy mates of his company our sincere sympathy.

New Teaching Aids

(Continued from page 37)

Industrial Education

Simplified Carpentry Estimating. J. Douglas Wilson and Clell M. Rogers. New York, N. Y.: Simmons-Boardman Publishing Corp., 1940-45. 228 pages. $3.00.

A practical text covering estimating on rough lumber, finish lumber, hardware, and labor time.

Manual of Aircraft Layout. Rudolph Faltus and Charles Steinmetz, New York, N. Y.: John Wiley and Sons, Inc., 1944. 240 pages, $3.00.

Workbook type of text with many drawings, charts, and tables. Covers blueprint reading, laying out jobs, template development, tools and the mathematical understandings required for this new field.

Building Trades Blueprint Reading, Parts I and II. J. Ralph Dalzell. Chicago, Ill.: American Technical Society, 1945. Part I, 142 pages, $2.00. Part II, 234 pages, $2.00.

Part I aims to teach architectural blueprint reading without requiring students to burden themselves with other principles not closely associated with the building industry. Part II covers specifications, making of blueprints and drawings. Many practical problems.

With the Watchmaker at the Bench. Donald de Carle. New York, N. Y.: Pitman Publishing Corp., 1933-44. 239 pages. $3.00.

What to do and how to do it. A timely illustrated volume for the increasing attention to training for watchmaking.

Everyday Beauty Culture. Helen Livingstone and Ann Maroni. Bloomington, Ill.: McKnight & McKnight, 1945. 116 pages. $1.68.

Abundantly illustrated but concise text for courses that continue to grow in popularity in vocational schools.

Business Education

Careers in Business for Women. Doree Smedley and Laura Robinson. New York, N. Y.: E. P. Dutton and Co., Inc., 1945. 224 pages. $2.75.

Presents new opportunities created by the war; surveys future outlook. Authors introduce life stories of successful women to illustrate their points.

CHARTS AND POSTERS

Four of the two-color Industrial Safety posters developed by Mill & Factory and issued by the U. S. Department of Labor, Division of Labor Standards are now available: *Drill Presses, Circular Saws, Electric Trucks, Engine Lathes.* Nine more will be issued. Single copies free to vocational schools, low rates for additional copies. Write to Mill and Factory, 205 East 42nd St., New York City.

Industry's Oilstones for Sharpening-Honing-Filing is a pictured chart of **Norton Abrasives**, Behr-Manning Div., Troy, N. Y.

NEW CATALOGS AND LISTS

McGraw-Hill Books for Vocational Training in the Years Ahead. New York, N. Y.: McGraw-Hill Book Co., Inc., 1945-46.

Covers large number of recent books for industrial education, industrial arts, and rehabilitation.

Lyon Shop Equipment. Aurora, Ill.: Lyon Metal Products, Inc.

Steel shop equipment, shelving, lockers, and vocational equipment again becoming available.

The 100 Best. Chicago, Ill.: Science Research Associates. 10 cents.

Free and inexpensive guidance materials of the past year.

School Buyer's Guide. Chicago, Ill.: Beckley-Cardy Co., 1944-45. 192 pages.

Wide variety of equipment used by schools listed in this 192 page 1944-45 issue.

IN PAPER COVERS

Jobs for GI Joe in America's Hotels. Public Relations Committee of the American Hotel Association. New York, N. Y.: American Hotel Association, 1944. 26 pages.

Opportunities in the hotel business. Suggests vocational training.

The 1944 Occupational Index. New York University. New York, N. Y.: Occupational Index, Inc., $6.50.

References on 97 military, 441 civilian occupations.

The Story of The Diesel. Chicago, Ill.: The Diesel Engine Manufacturers Association, 1945. 32 pages.

Brief, popular, illustrated.

A VALUABLE GUIDE IN PLANNING THE SCHOOL SHOP
HOW TO PLAN A SCHOOL WORKSHOP
PRICE $1.00
THE DELTA MANUFACTURING CO. MILWAUKEE
GOOD POINTS TO REMEMBER IN CONSIDERING REQUISITIONS FOR SHOP EQUIPMENT
BASIC PRINCIPLES HELPFUL IN REVIEWING THE OVER-ALL STATUS OF SHOP PROGRAMS

Free Shop Planning Help from Delta

In this practical handbook, "How to Plan a School Workshop," Delta shares with you its intimate working acquaintance with the particular requirements of school shops — authoritative knowledge gained through many years' association with the industrial arts field.

For example, this 44-page book provides you with photographs and layout drawings of 30 typical shops, for schools large and small. These are not fanciful shops "dreamed up" by Delta, but floor-plans of shops that have been actually built and proven practical in regular classroom use. They are the winners selected by impartial judges in a nation-wide shop-planning competition, from hundreds of plans submitted by vocational instructors.

This helpful book also serves you as a condensed guide to principles of shop planning . . . to the selection, placement, and efficient use of the major power tools.

Here is useful information that is of value to you — from the standpoint of economy, safety, convenience, teaching efficiency — regardless of the present stage of your postwar planning.

There's a free copy of "How to Plan a School Workshop" ready for mailing to you. Send for your copy today, to help you keep well-informed on planning and equipping the school shop. Use the coupon on the next page for convenience.

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Machine Tools

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for metalworking and woodworking

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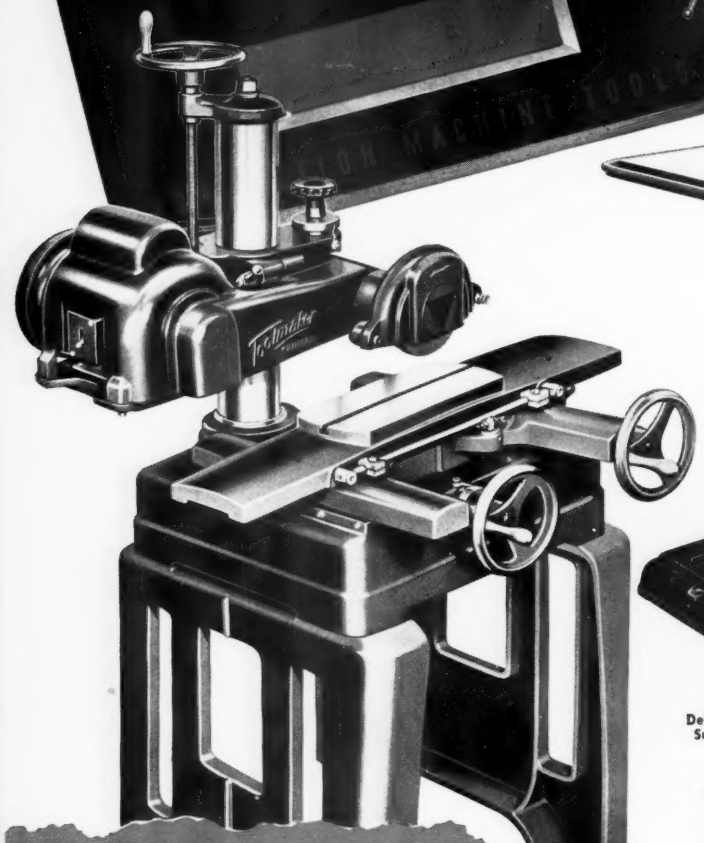

Delta
17" Drill Press
(for metal, wood,
or plastics)

Delta
14" Drill Press
with production table

Delta Toolmaker*
Surface Grinder

Delta
Industrial Grinder
with Safety Shields

In addition to machines illustrated, the complete line of Delta-Milwaukee Machine Tools includes:

• Delta Unisaw* (10" Tilting Arbor Circular Saw) • Delta 6" Jointer • Delta Abrasive Belt Finishing Machine • Delta Abrasive Disk Finishing Machine • Delta 4-speed Scroll Saw • Delta Heavy-Duty Shaper • Delta 12" Woodworking Lathe • Delta 14" Band Saw (wood-cutting or metal-cutting) • Delta Cut-Off Machine.

Certain tools are available to schools under automatic priorities (CMP Regulation 5a). Consult your Delta distributor.

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Please send me my free, personal copy of:

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☐ Catalog of low-cost Delta-Milwaukee Machine Tools.

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101 Welding Ideas for Low-Cost Maintenance. Cleveland, Ohio: The Lincoln Electric Co., 1945. 16 pages.
Photographs illustrate each idea.

Hand Tools, Their Correct Usage and Care. Detroit, Mich.: General Motors Corp., 1943. 53 pages.
Boiled down. Illustrations especially well drawn.

Optonic Colors For Schools. Cleveland, Ohio: The Arco Co., 1945. 23 pages.
Something to read before you paint your schools walls.

Occupational Abstracts: Postwar Jobs in *Guidance and Personnel Services, Nursing, Medical Laboratory Technologist, Medicine, Banking, Boilermaking, Bookkeeping, City Firemen, Diesel Engines, Funeral Director, Insurance Salesman, Police Officer, Stenographic Work, Veterinarian, Journalism, Taxi Driving.* New York University. New York, N. Y.: Occupational Index., Inc., 1945. 25 cents each. Latest in abstract series.

Pupil Personnel Services for All Children. U. S. Office of Education, Washington, D. C.: Superintendent of Documents, 1944. 20 pages. 10 cents.
Discusses a service which is new but growing in American education.

Educational Reconditioning. Occupational Therapy. Physical Reconditioning. War Department, Washington, D. C.: Superintendent of Documents, 1944. 15 cents.
Three War Department technical manuals on reconditioning.

EQUIPMENT

South Bend Lathe Works has just issued Catalog 9-G, which illustrates in full color the 9-inch engine lathes and toolroom lathes, 9-inch precision turret lathes which have ½ inch collet capacity, and lathe tools, accessories, motors and controls, and attachments for special classes of work. Models in this catalog are well suited for the production of small precision parts, for exacting toolroom work, and for general and specialized use in machine, maintenance, repair and laboratory shops for working of all metals, plastics, and other machineable materials. Catalog 9-G, a visual aid in itself, will be mailed free upon request to South Bend Lathe Works, 176 E. Madison St., South Bend 22, Indiana.

Allied Radio Corp., 833 West Jackson Blvd., Chicago, announces a new Parallel-Resistance and Series-Capacitance Calculator. Time-saving slide rule device. 25 cents.

Numerous companies have been licensed to produce magnetic sound recorders as soon as war restrictions are lifted, **Armour Research Foundation,** Illinois Institute of Technology, Chicago, announces.

All steel utility trucks for use in workshops, dining rooms, etc., are now ready for immediate delivery. For details write to **Drinkwater, Inc.,** 2323 South Michigan Ave., Chicago 16, Ill.

Plexon joins the list of new yarns. Data about it can be obtained from **Freydberg Bros.-Strauss,** 212 Fifth Ave., New York, N. Y.

Four simple steps for installing full pipe strength outlets by the WeldOlet Method are described in a booklet free from **Bonney Forge & Tool Works,** Allentown, Pa., Dept. 202.

Ultraviolet Light as an Aid to Education is a free reprint available from **Ultraviolet Light Products, Inc.,** 5205 Santa Monica Blvd., Los Angeles, Calif.

For information about a new model of Take-About Surfacer write to **Porter-Cable Machine Co.,** Syracuse 8, N. Y.

A preheating device for workshop and laboratory is the infrared radiant energy unit. For information apply to **Fostoria Pressed Steel Corp.,** Fostoria, Ohio.

A new "Fold-Pak" motion picture screen has been announced by **Radiant Mfg. Co.,** 1140-46 West Superior St., Chicago 22, Ill.

A new type of electrostatic voltmeter has been developed by **Rawson Electrical Instrument Co.,** Cambridge 42, Mass.

for **BETTER GROOMING**

Write for "EVERYDAY BEAUTY CULTURE"

by LIVINGSTONE & MARONI

- **How to give beauty treatments to yourself**
- **How to give beauty treatments to others**

A new beauty textbook which prepares the girl planning to enter beauty service, and serves as a guide to every girl in her own personal grooming. Presents the necessary basic manipulative skills. Clear illustrations showing each movement of the hands in treating the hair, massaging, manicuring, etc. Tells what you should know how to do and what you should know. You will be impressed with the hundreds of large clear easy-to-understand illustrations. Write for approval copy. $1.68.

McKnight & McKnight
BLOOMINGTON, ILL.

Stop using and teaching canning methods of 25 years ago. No woman need be a drudge in a hot kitchen.

The Burpee Way of Home Canning is modern, easier, quicker, safer and a lot of fun. It's the way to can every vegetable, fruit, fish, butter, meat, chickens when tender and plentiful—the way to can three to four times as much food with less fatigue.

***STREAMLINE YOUR CANNING*—16 pages of interesting reading. Send for enough copies for all your students.**

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WE SPECIALIZE IN REBUILT MACHINE TOOLS FOR VOCATIONAL SCHOOLS
1000 Machines in Stock — Nation-Wide Distribution
Winner of Army-Navy "E" with Three Stars for Excellence
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It is still necessary for us to save waste paper, tin cans, and fats. Don't throw them away! Salvage them!

State Vocational Association Officers

ON strong state vocational associations rests the strength of the American Vocational Association. Following are the presidents, secretaries, and treasurers who give leadership to those associations as we enter the 1945-46 school year. Applications for membership in the AVA come through state vocational associations. State vocational associations receive both AVA and state dues. When you send in your dues for 1945-46 remember that the AVA Delegate Assembly at Philadelphia raised dues $1. National AVA dues beginning December 1, 1945 will be $2. Help your state officers build a strong organization.

Alabama
Mrs. Jewell C. Tanner, p., Bridgeport
O. F. Wise, sec.-treas., Room 412, Court House, Birmingham

Arizona
W. R. Ritchie, p., Box 373, Tolleson
Isabella McQuesten, sec.-treas., 200 Arizona State Bldg., Phoenix

Arkansas
Doyle Kelso, p., Searcy
Ruth Taylor, sec., Hope
R. W. Roberts, treas., University of Arkansas, Fayetteville

California Agricultural Teachers' Association
Gilbert Hutchins, p., Bakersfield Union High School, Bakersfield
Arthur J. Godfrey, sec.-treas., San Luis Obispo City Schools, San Luis Obispo

California Industrial Education Association
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David Jackey, sec.-treas., 131 Education Bldg., University of California, Los Angeles

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Louis A. McElroy, sec.-treas., 1428 Lafayette St., Denver

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Carl Gray, p., Grenby Mfg. Co., Plainville
Robert J. Dobbs, sec., State Trade School, Danbury
Ernest Panciera, treas., 226 Parker St., Manchester

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Paul Hodgson, p., Acting State Supervisor of Agriculture, Dover
C. Frances Vogeding, sec.-treas., 2107 Franklin St. Wilmington 223

District of Columbia
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Euclid Fleming, rec.-sec., Alexander Graham Bell Vocational School, 7th and O Streets, N. W.
Mrs. Gene Gottwals, treas., Chamberlain Vocational High School, Potomac Ave., S. E.
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V. T. Turner, p., Washington Vocational High School, O and N. Capitol Sts., N. W.
Walter L. Craig, sec., Washington Vocational High School, O and N. Capitol Sts., N. W.
V. A. Walker, treas., Washington Vocational High School, O and N. Capitol Sts., N. W.

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T. G. Walters, sec.-treas., State Department of Education, State Office Building, Atlanta

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Harmon Toone, sec.-treas., Firth

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F. E. Carpenter, sec.-treas., 1406 E. 27th St., Topeka

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Lucille McCurdy, sec.-treas., Ahrens Trade School, Louisville
For Colored: Whitney M. Young, Director, Lincoln Institute, Lincoln Ridge

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Thomas Hampton, sec.-treas., Department of Education, Baton Rouge

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Mrs. Doris E. Bachelier, sec.-treas., 326 Main St., Saco

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Charles W. Dudderar, sec.-treas., Boys' Vocational School, Howard and Centre Sts., Baltimore

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Helen M. Carter, sec., David Hale Fanning Trade School for Girls, Worcester
Lewis B. Robinson, treas., Lawrence High School, Falmouth

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Mrs. Celia Grady, sec.-treas., Supervisor of Teacher Certification, State Board of Control for Vocational Education, Lansing

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F. J. Lueben, sec.-treas., 2651 University Ave., St. Paul

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R. H. Fisackerly, sec.-treas., Box 771, Jackson

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Dr. G. J. Dippold, sec.-treas., Waters Hall, University of Missouri, Columbia

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Ralph Mowery, sec.-treas., Manhattan High School, Manhattan

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Mildred Riggle, sec.-treas., 544 13th St., Sparks

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Donald Taylor, sec., Tilton-Northfield High School, Tilton
Beatrice Judkins, treas., Center Sandwich

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James Shields, sec., Thomas A. Edison Vocational and Technical High School, Elizabeth
Harold A. Weideli, treas., 166 Zabriskee St., Bergen County Vocational School, Hackensack

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Naoma Peninger, p., Deming
Frank E. Wimberly, sec.-treas., State College of Agriculture, State College

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Verne A. Bird, p., Assistant Superintendent of Schools, Rochester
Malcolm Galbreath, sec., Agricultural and Technical Institute, Morrisville
Alice Durkee, treas., Parker High School, Clarence

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A. B. Bushong, p., Ellenboro High School, Ellenboro
George W. Coggin, sec.-treas., State Department of Education, Raleigh

North Dakota
Stanley Ostrom, p., Fargo
G. W. Haverty, sec.-treas., State School of Science, Wahpeton

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Eugene E. Hart, p., 1636 Mears Ave., Cincinnati 30
C. E. Rhoad, sec.-treas., Department of Agricultural Education, Ohio State University, Columbus 10

Oklahoma
Bonnie Nicholson, sec.-treas., A. and M. College, Stillwater

Oregon
(Not reported)

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Emma Watts, Office of County Supt. of Schools, Pittsburgh
Henry S. Brunner, sec.-treas., Pennsylvania State College, State College

Puerto Rico
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Maria Valentin, sec.-treas., Insular Board for Vocational Education, San Juan

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H. A. Smith, sec., 604 Joan St., Columbia
Marie Jones, treas., State Department of Education, Columbia
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H. E. Urton, treas., State Department of Public Instruction, Pierre

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W. A. Seeley, sec.-treas., 229 War Memorial Bldg., Nashville

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Henry Ross, sec.-treas., A. and M. College, College Station
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Vermont
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Carrie Vaughan, sec.-treas., Newport News High School, Newport News
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Washington Vocational Association
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Margaret Wise, sec.-treas., Box 107, Redondo

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H. A. Lightner, sec.-treas., 2800-2850 Fifth Ave., Huntington

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M. Medora Roskilly, Racine Vocational School, Racine
Clare D. Rejahl, sec.-treas., School of Vocational and Adult Education, Beloit

Wyoming
Raymond D. Low, p., Lyman
Blaine Bradshaw, sec.-treas., Wheatland

Tips this month

BUSINESS teachers can obtain a list of *Periodicals of Professional Interest to Teachers* by dropping a post card request to Business Education Service, U. S. Office of Education, Washington, D. C.

Do you want to work abroad? Alaska, China, South America, Africa? If you want to know about job opportunities outside U. S., go to your nearest U. S. Employment Service office and ask to see the *Guide to Foreign Employment Opportunities*. The guide lists both government and private companies.

Practically everybody is preparing a directory for veterans. One of the best we have seen is Connecticut's *Adjustment and Reemployment Guide and Directory*. If you are interested, you can probably secure a copy through the Connecticut Reemployment Commission, State Armory, Hartford, Conn.

With U. S. casualty figures running above 1,000,000, we need to give more thought to programs for the disabled. For a free *List of References on Rehabilitation of the Disabled*, write to the U. S. Office of Education. Ask for Misc 3441.

Wichita High School East, Wichita, Kans., has issued an attractive two-color brochure describing courses offered. If you are preparing promotion leaflets you might pick up some ideas from Wichita.

Do you have a vocational education story to tell via radio? One of the cleverest scripts we have seen was presented by the Vocational Agriculture Teachers Association of Texas. It might have some ideas you could adapt to your locality. You can borrow a copy from Radio House, University of Texas, Austin, Texas. Ask for *Special Broadcast—A Victory Lesson*. Feb. 23, 1945.

Perhaps you too have been asked to talk on "Vocational Education Looks Ahead" or some such subject. A reliable source of impressive figures is F. W. Lathrop's chapter from the 44th Yearbook, National Society for the Study of Education. Free copies as long as supply lasts of *The Organization of Vocational Education for Youth and Adults* may be obtained from Dr. Lathrop, Agricultural Education Service, U. S. Office of Education.

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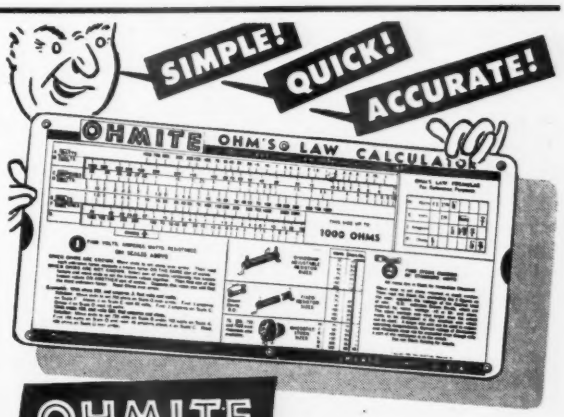
ADVERTISERS' INDEX

Advertiser	Page
American Handicrafts Co., Inc.	Second Cover
American Technical Society	41
Barrett Equipment Company	Back Cover
Botwinik Brothers, Inc.	39
Burpee Can Sealer Company	39
Concord Radio Corp.	35
Delta Mfg. Co.	Between 38 & 39
Ford Motor Co.	33
Higgins Ink Co., Inc.	31
Jam Handy Organization	37
Macmillan Company	24
McGraw-Hill Book Company	25
McKnight & McKnight	39
Ohmite Manufacturing Co.	41
Scholastic Magazines	Third Cover
South Bend Lathe Works	3
John Wiley & Sons, Inc.	27
X-Acto Crescent Products Co.	29



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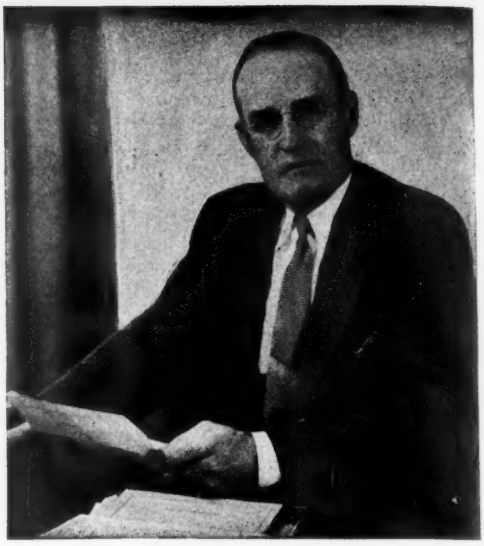


Some Pending Federal Legislation.—As we send material to the printer for this page early in July, we have reviewed some legislative proposals of considerable significance to vocational education. Do not hesitate to send to your U. S. Senator or one of your Congressmen for copies of those bills in which you are interested.

Vocational Appropriations for 1945-46 (H. R. 3199).—This legislation has passed both houses of Congress and the bill has been signed by the President. This measure carries full appropriations under the Smith-Hughes and George-Deen Acts. Provision also has been made for funds for administration of vocational education in the U. S. Office of Education.

Food Production War Training.—While all vocational war training programs are cancelled by elimination of appropriations the food production training program was continued because of the shortage of food. Congress has appropriated $1,670,000 for this purpose.

Liquidation of TWI.—The House of Representatives eliminated all funds for further continuance of the TWI program. The Senate reinstated an appropriation of $1,200,000. The conference committee of the two Houses made final adjustment by reducing this to $600,000 and inserting a provision to permanently liquidate TWI by December 31, 1945.

Federal Apprenticeship Program.—Congress has continued this program by an appropriation of $550,000. (House proposed $520,000, Senate, $683,000.)

Office of Education Reorganization.—The House eliminated all requests for additional funds to reorganize the U. S. Office of Education. The Senate eliminated all earmarked funds for the Office of Education including vocational education and substituted an omnibus appropriation with an increase of $100,000 for administrative purposes. Conference committee restored all specific appropriation items and eliminated omnibus appropriation. The additional appropriation of $100,000 was finally approved.

Commission on Emergency Federal Aid to Higher Educational Institutions (H. R. 3116).—This includes technical institutes, junior colleges, and normal schools. The commission will cease to exist six months after termination of hostilities. It provides aid on the basis of need during the period of the war, to the extent of $25,000,000.

Agricultural Extension—Farm Bureau Alliance.—An amendment to H. R. 1690, the Agricultural College Extension Bill, was defeated in the House but led to a proposal for an investigation of the relationship between the Farm Bureau and the Extension Services of the Land-Grant Colleges. Both Democratic and Republican leadership of the House Agricultural Committee were committed to the proposed investigation and Rep. Robertson (N. D.) urged Chairman Flannagan to "appoint a subcommittee * * * for the purpose of making a judicious and careful study of this involved question, the same to be completed and the report made before the next appropriation for the Extension Service." Subsequently S. 1078, limiting the uses to which Extension Service funds may be put, was introduced by Senator Thomas (Okla.).

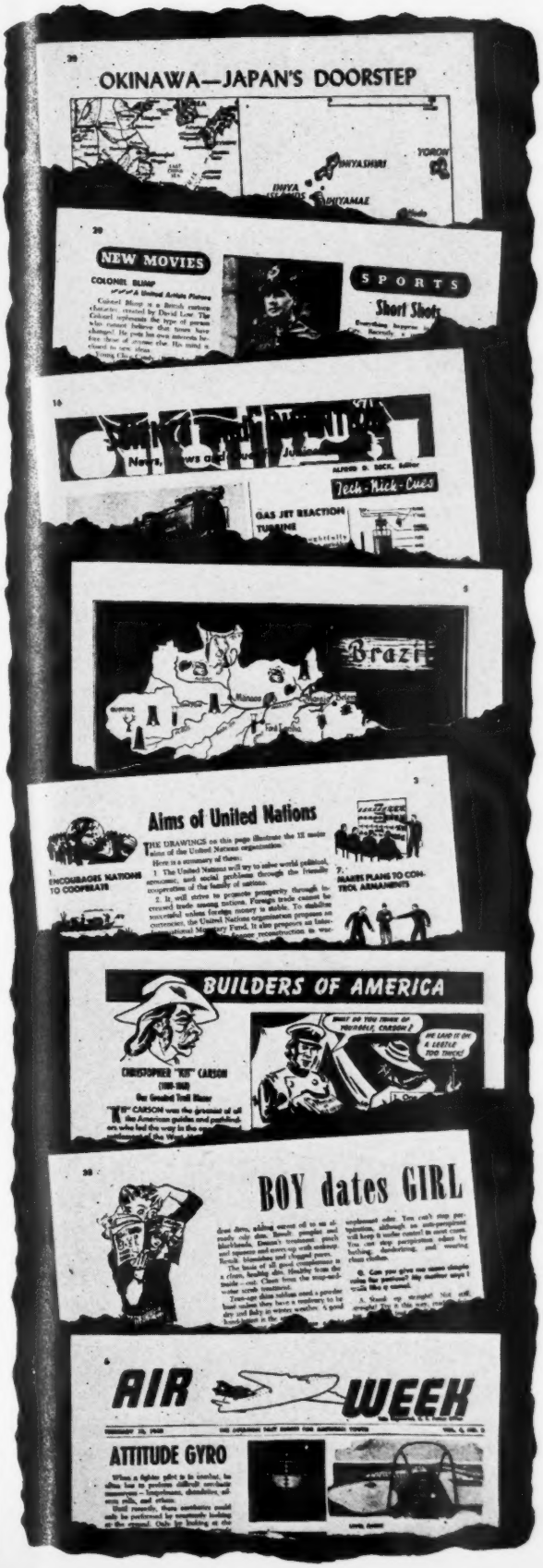
American Farm Bureau Federation Withholds Approval.—At the hearings on S. 619, the Farm Bureau expressed opposition to the vocational education bill on the grounds that its provisions for out-of-school youth might conflict with the work of the Extension Services of the Land-Grant Colleges; also stated that the amount of money requested was excessive. It gave full support to increased Federal funds for Agricultural Extension.

Proposed Amendment to Smith-Hughes Act.—S. 1080, "A bill to amend Public Law 347, sixty-fourth Congress, approved Feb. 23, 1917." The change would provide that "the administrators, directors, supervisors, and teachers necessary in the several States to carry out the provisions of the Act shall be appointed in accordance with the laws of the respective States." On the basis that it was innocent, routine legislation it was passed suddenly and without notice by the Senate. However, this legislation is based upon a bitter political fight in a southern State. It also is an attack on control of vocational education through State boards for vocational education.

Respectfully submitted,

L. H. Dennis

Executive Secretary



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